INSIDE: GUN-TOTING GARDENERS

Montana Outdoors

MONTANA FISH, WILDLIFE & PARKS ★ $3.50

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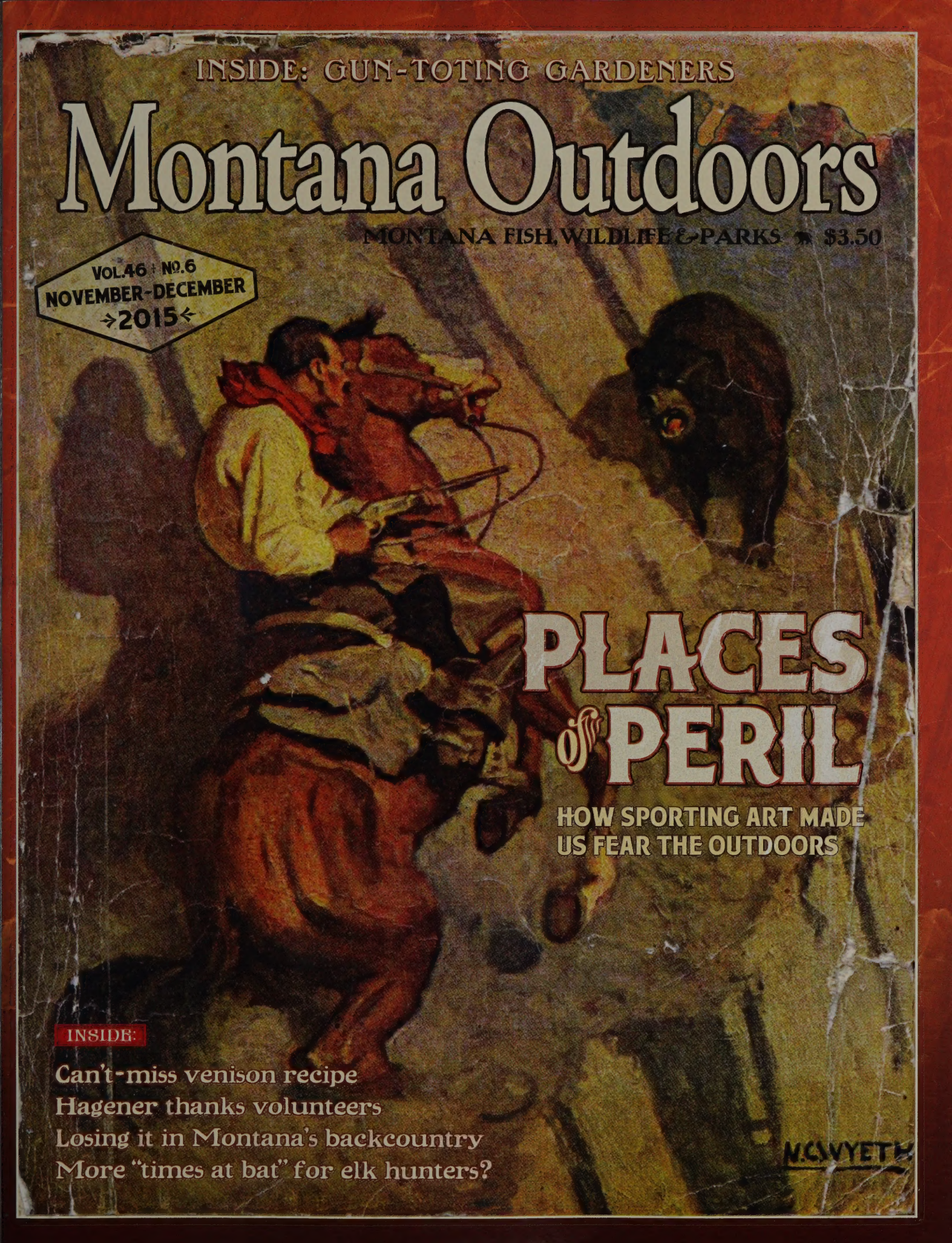


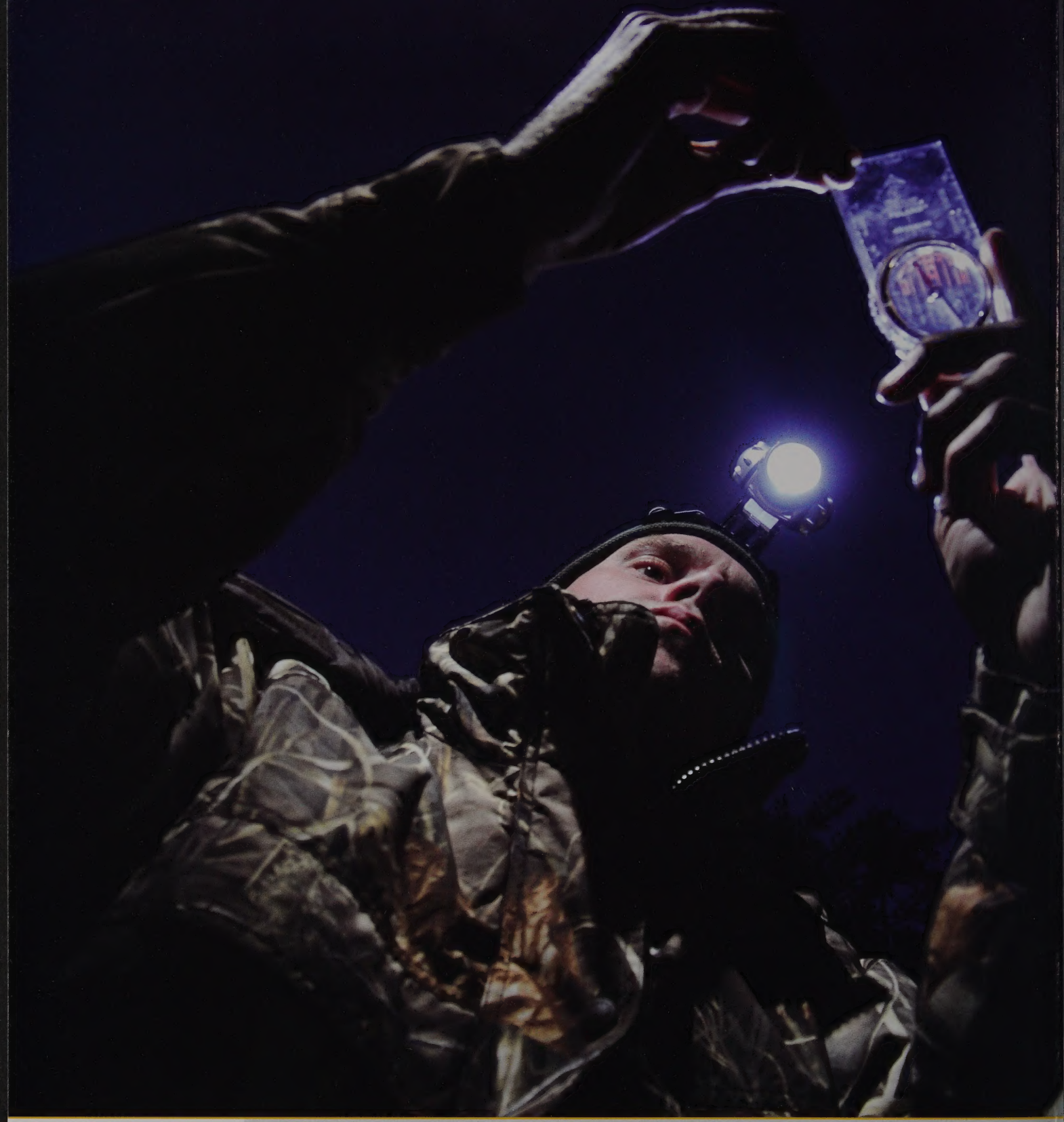
PLACES of PERIL

HOW SPORTING ART MADE US FEAR THE OUTDOORS

INSIDE:

Can't-miss venison recipe
Hagener thanks volunteers
Losing it in Montana's backcountry
More "times at bat" for elk hunters?

N.C. WYETH



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Montana Outdoors

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NIGHT WATCH
Don't find yourself lost in the mountains this winter. See our story on survival strategies on page 30. Photo by Ryan Brennecke.

FRONT COVER
"Predicament scenes" like this enthralled several generations of Montanans. See page 18 to learn why they were created. Painting by N.C. Wyeth. Photo illustration by Luke Duran/*Montana Outdoors*.

Head-hitting essay

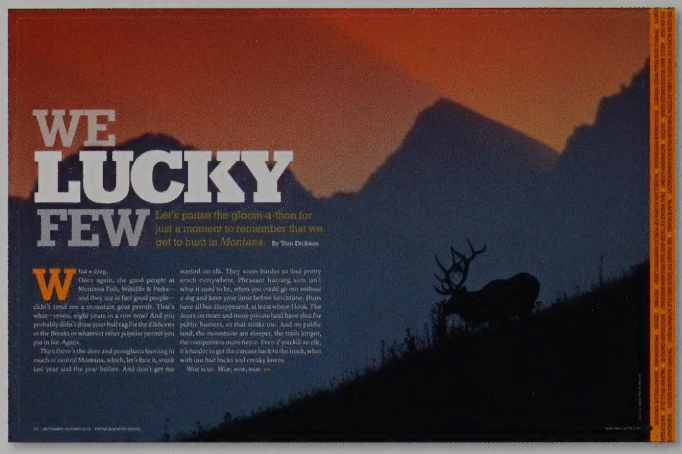
Your essay "We Lucky Few" (September-October) is a must-read. The article articulates the grumblings we often hear about why Montana's hunting and fishing aren't the same as in the "old days." For those of us old enough to have lived here in the old days, I can tell you that the essay hit it on the head. Despite a far larger human population in our state, and all the consequent impacts and stresses placed on wildlife and the places they live, indeed we should count ourselves among the lucky few. As a retired U.S. Fish & Wildlife Service wildlife biologist who has worked in several western states, including Montana, I know we are blessed not only to enjoy a rich wildlife heritage, vast public lands, and private landowners who care about wildlife, but also to have a highly professional state agency managing and conserving our fish and wildlife resources.

Bruce Smith
Sheridan

Why Grandpa chooses to hunt in Montana

Regarding your essay "We Lucky Few": Yes, we can feel sorry for ourselves about the perceived lack of game and access, but the truth is that we residents and our fellow nonresident hunters who join us every year really do have a hunting cornucopia in Montana. I moved here from the East over 20 years ago just for the opportunity to hunt and recreate, and I haven't been disappointed. All my successful hunts for deer and antelope, and even a few elk, have confirmed that decision.

I am paying a high price for being here in not being able to see my children and grandchildren as much as I would like. But



there is not a day of hunting when at some point I am not awestruck by the opportunity and thankful for the experience. During those times when I am not seeing any game and start feeling disappointed, I remind myself, "Are you kidding? You are hunting in Montana!"

Chuck Tarinelli
Belgrade

Listen to Bruce

In his essay "Bowhunting's 'infinity of contraptions'" (The Back Porch, September-October), Bruce Auchly writes that modern bowhunting technology leads many hunters to think they can take 75-yard shots, even though these shots typically result in a mortally wounded animal that won't be found. And he urges hunters to consider how their reliance on technology affects their ethics. This is sound advice, but I doubt if the hunters who really ought to reflect on it ever will. They're not concerned with ethics, or the welfare of the elk herd. They just want to kill elk. And who can blame them, when this is exactly what FWP's elk management policies promote? The department's liberal elk hunting regulations allow growing numbers of bowhunters to increasingly disrupt the rut and target the largest bulls when they're most vulnerable. FWP seems to be more concerned with selling licenses than conserving the priceless genetic quality of our elk herds.

> **"This would eliminate most incompetent bowhunters, improve hunting experiences for proficient bowhunters, and take some pressure off elk when they need it most."**

FWP should follow Auchly's advice. Do some soul-searching. Create regulations that protect rutting elk from inept bowhunters. Hunters will never voluntarily limit their use of technology, and most of them won't voluntarily refrain from hunting elk in both seasons, so FWP should force them to choose their weapon, either a rifle or a bow, but not both. This would eliminate most incompetent bowhunters, improve hunting experiences for proficient bowhunters, and take some pressure off elk when they need it most.

Bob Love
Columbia Falls

What to do about cats?

Bruce Auchly's essay "The last thing birds need" (The Back Porch, July-August) addressed feral and pet cats preying on birds, reptiles, amphibians and small rodents. This issue is a much-debated and polarizing subject in the veterinary profession. Some vets promote and participate in Trap, Neuter, and Return (TNR) programs, in which colonies of feral cats are captured, sterilized, and released back into the environment. Unfortunately, sterilization programs over the decades have failed to curb ever-increasing feral cat numbers, now estimated at 60 million in the United States. Quality of life for members of a feral cat colony is poor at best. Wounds inflicted by territorial conflicts, inclement weather, inadequate nutrition, and viral diseases such as feline leukemia and distemper go unchecked and untreated. And then there's the tens of millions of birds that feral cats kill each year.

Feral cat colonies present a tough problem across the country. Destruction of these colonies is anathema to much of the public. However, it is clear that the current use of TNR programs has been ineffective in controlling feral cat numbers.

Ed Wolff D.V.M.
Ann Bailey
Stevensville, MT

Correction

Many subscribers and FWP staff members wrote to alert us that the photo on page 34 of the article "Mastering Block Management" (September-October) showed a mule deer hunter not wearing the legally required amount of blaze orange. A big game firearms hunter must wear at least 400 square inches of blaze orange above the waist that is visible at all times. ■

Perfect Braised Venison

By Tom Dickson | Preparation time: 15 minutes | Cooking time: 2 to 3 hours | Serves 6

I never thought I'd have to bring out the big gun, but I was wrong.

Anyone reading *Montana Outdoors* over the past several years who is interested in cooking game knows that I'm all about braising. This time-honored method of slowly cooking meat in moisture at low temperature transforms the toughest cuts (shanks, shoulders, necks) into delicious dishes you'd be proud to serve the King and Queen of Sweden.

I praise braising so regularly because it breaks my heart to think that each year tens of thousands of elk and deer shanks are tossed in the trash—wanton waste—or turned into sausage meat. Nothing wrong with sausage, but that's by no means the best use of a good shank.

I thought I was making some headway until a few weeks ago when I read a game cooking blog in which the author had this to say about venison shanks: "The best use for this inedible chunk of lower leg is to feed it to the dog." Sigh.

So in the interest of once again giving shanks their due, I offer this recipe for the best braised venison dish I've ever tasted. It's a variation of one by award-winning New Orleans chef and restaurateur John Besh that was reprinted in *Field & Stream* a few years ago. The vegetables, herbs, and mushrooms ground the dish in earthy flavors. The apple and wine add fruity tones that balance the tomato's acidity while giving the dish a holiday flare. Ladle over polenta or mashed potatoes and serve with crusty bread to sop up every last drop.

Follow Besh's easy recipe this Thanksgiving, Christmas, or New Year's Eve. I promise it will be one of the best—if not *the* best—venison dishes you and your guests have ever tasted. You'll never look at shanks the same again.

Chef John Besh's cookbook, My New Orleans *($45; Andrews McMeel Publishing), features more than 200 of his best dishes, including many delicious game dishes.*

—Tom Dickson is editor of Montana Outdoors.

INGREDIENTS

- 3 pounds venison shoulder meat, shank, or neck roast
- 3 T. bacon drippings or duck fat
- 1 onion, diced small
- 1 carrot, peeled and diced small
- 1 celery stalk, diced small
- 3 T. flour
- 1 garlic clove, crushed
- 1 c. canned diced tomatoes
- 1 apple, any type, cored and diced
- 1 oz. dried porcini, morel, chanterelle, or other mushrooms (or 8 oz. fresh)
- ½ c. beef broth
- 1 c. apple juice
- 1 c. red wine
- 1 small sprig fresh thyme (or ½ t. dried)
- 1 small sprig rosemary (or ½ t. dried)
- 1 bay leaf
- Dash of sugar
- Salt and pepper, to taste

DIRECTIONS

Preheat oven to 300 degrees.

Season venison with salt and pepper. Over high heat, add bacon drippings or duck fat to a pot, then brown venison on both sides.

Remove venison, then add onion, carrot, and celery. Reduce heat to medium and stir while cooking, until vegetables turn a rich brown. Stir in flour. When flour has been well incorporated, add garlic, tomatoes, apple, and mushrooms.

Stir in beef broth, apple juice, and red wine. Raise heat to high and bring to a boil. Add thyme, rosemary, bay leaf, sugar, and venison.

Remove pot from stove, cover, place in oven, and cook for 2 to 3 hours, or until you can easily pull the meat from the bone with a fork. Taste sauce and season with salt and pepper as needed.

Remove from oven. Take out venison and carefully pull meat from the bone (or serve on the bone if you prefer). Return meat to the cooking liquid until ready to serve.

Place a large spoonful of polenta or mashed potatoes on a plate. Top with a generous spoonful or two of the venison with sauce. ■

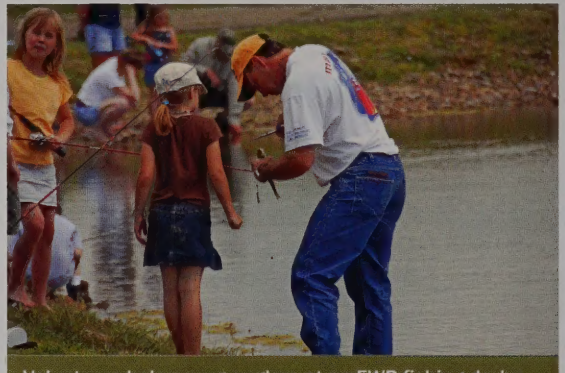
SHUTTERSTOCK

I'm thankful for FWP volunteers

Two elk hunters approach a barbed wire fence. One unloads his rifle and hands it to his partner, who lifts the top wire for easier crossing. Then she unloads her rifle and hands it over to him before ducking under the wire. Once across, the two reload and continue on their way.

Episodes of hunting safety like this, played out thousands of times across Montana each fall, are brought to you by Montana's roughly 1,500 volunteer Hunter and Bowhunter Education instructors. Generous with their time and committed to the public good, these instructors are among the thousands of Montanans who help our department each year.

FWP has a lot of responsibilities, and volunteers allow us to do far more with our limited funding than we could otherwise. Like the sportsman's club that buys a deer decoy for the local game warden, or the rancher who helps pay for a grizzly bear's GPS collar. A few years ago, more than 60 volunteers helped radio-tag 200 elk calves for FWP's groundbreaking Bitterroot elk study. Last year the volunteers at just one state park, First Peoples Buffalo Jump, donated 778 hours leading interpretive hikes, greeting guests at the visitor center, and doing maintenance.



Volunteers help young anglers at an FWP fishing derby at Glasgow's Home Run youth fishing pond.

Volunteers help our fisheries crews by shuttling vehicles, electrofishing, clipping fins, and placing used Christmas trees in reservoirs for perch spawning habitat. Others pick up litter at state parks, clear and groom snowmobile trails, help clean fish hatchery raceways, and pull invasive plants at fishing access sites.

At the Montana State Fair in Great Falls, volunteers help set up, tear down, and staff the FWP areas of the Nature's Den building. At our Montana WILD Outdoor Education Center in Helena, they lead education programs, help at the front desk, prepare food for injured raptors, and clean pens. Each year some 1,800 volunteers help out at fishing education clinics and events. And more than 800 volunteer anglers across Montana diligently log their fishing activity throughout the year and send their reports to our biologists to use for fisheries management.

All that generosity adds up fast. Last year volunteers across Montana donated more than 65,000 hours to FWP programs, the equivalent of more than 30 full-time staff positions.

That doesn't even include the contributions made by the seven FWP regional Citizen Advisory Councils, which provide public input that helps guide our management decisions. Or the conservation-minded citizens who have volunteered to be on the Greater Sage-Grouse Habitat Conservation Advisory Council, Fish & Wildlife Licensing and Funding Advisory Council, Upland Game Bird Enhancement Program Advisory Council, Snowmobile Advisory Committee, Private Land/Public Wildlife Council, State Trails Advisory Committee, Montana Wolf Management Advisory Council, River Recreation Advisory Committee, and half a dozen local river citizen advisory committees.

Then there's the millions of dollars worth of land donated by landowners to be added as wildlife management areas, state parks, and conservation easements, as well as the millions of dollars contributed to FWP programs by conservation and parks groups and their members.

And I can't forget the many FWP employees who regularly volunteer to work extra unpaid hours for their own research or management projects or lend a hand to their colleagues in the department.

Generosity to help fish, wildlife, and parks has a long history in Montana. As just one example, in 1912 the Stevensville Rod and Gun Club sponsored two rail shipments of 100 Yellowstone National Park elk that they helped relocate in the Bitterroot Valley, part of early efforts to restore these big game animals in Montana. Over the ensuing century, volunteer action across the state has been at the heart of stream protection, public water fishing access advocacy, habitat conservation, river cleanups, youth hunts, and more.

What accounts for this outpouring of labor, funding, and goodwill? I suspect that most volunteers' generosity comes from their passion for—and pride in—Montana's wildlife, fisheries, and state parks, and a desire to help conserve those resources and share their knowledge with others.

Many are like Chuck Ericson. A retired union pipefitter who also runs a ranch, Ericson puts his broad set of skills to work improving Milltown State Park. He has helped plant trees, clean up old dump sites along the Blackfoot River, and remove barbed wire fence. He's usually the first to show up for park volunteer events and one of the last to leave. To top it off, the quick-witted Missoulian enjoys working with the public, making him an even greater asset to this relatively new state park.

Those of us lucky enough to live here have a lot to be grateful for, from the spectacular scenery to the abundant outdoor recreation to the many remaining wild places that give Montana its rugged character. This holiday season, I'm also giving thanks to the people who volunteer their time to help us manage the fish, wildlife, and parks that add so much to this state's high quality of life.

—M. Jeff Hagener, *Montana Fish, Wildlife & Parks Director*

DAVE HAGENGRUBER/MONTANA FWP

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CHRIS MCGOWAN

EASEMENT ENABLER

CORY LOECKER
Wildlife Biologist, Great Falls

Behind me in this photo is one of five conservation easements I've helped FWP purchase for sportsmen and sportswomen. Four of the five easements, totaling 4,250 acres and 15 river miles, are here along the Missouri River between Cascade and Great Falls. I grew up along the Missouri on the Nebraska-South Dakota border, and places where my dad and I used to hunt are now full of houses. When I moved to Montana to work for FWP, I didn't want to see that happen here. Conservation easements maintain farmland and ranchland in private ownership and operation while providing public recreation and preserving important habitats for game and nongame species. The key for me in finishing any conservation easement has been partnerships. Groups like Pheasants Forever, Ducks Unlimited, Safari Club International, Wild Turkey Federation, Mule Deer Foundation, and Rocky Mountain Elk Foundation, along with PPL Montana, the Natural Resources Conservation Service, and the federal Pittman-Robertson Program, have been hugely important partners with FWP's Habitat Montana and Upland Game Bird Programs. Public support is also vital, especially when you propose spending the public's hunting license dollars. Without our partners and public support for conservation easements, many wildlife-rich places in Montana like this stretch of the Missouri could end up looking a lot different than they do today.

Photographer **MIKE HARING** was looking out the window of his apartment near Big Sky when he spotted a bobcat walking across the backyard. "We just had 4 inches of fresh snow, so I grabbed my camera and went outside to see if I could track him," he says. For the next two hours, Haring followed the bobcat through the forest, stopping occasionally to take photographs. "This was one of the last shots I took. It looks like he doesn't know I'm there, that I'd snuck up to him that close, but you don't sneak up on a bobcat. He knew I was there and just happened to look to the side when I took this shot." For some reason, Haring says, members of the cat and weasel families are less spooked by his presence than canids or bears. "I think they are curious. They'll check you out for five to ten minutes, and then take off. This cat knew he could ditch me at any time, and eventually that's what happened." ■

20%

On average, the percent of elk hunters in Montana who are successful killing an elk (bull or cow) each year.

Trophy hunting's conservation contribution

After a beloved lion in Zimbabwe was killed last summer, major media sources repeated false allegations from the Humane Society of the United States that trophy hunters were causing African lion populations to go extinct.

But not all coverage was biased and misinformed. In a September article, the *New York Times'* southern Africa bureau chief, Norimitsu Onishi, noted that most conservation groups maintain that hunting "is part of a complex economy that has so far proved to be the most effective method of conservation, not only in Africa but around the world as well." Onishi interviewed Zimbabwe-based ecologist Vernon Booth, who pointed out that African locals tolerate lions because of the income that trickles down. Booth said: "Without the trophy hunt money, locals would increasingly poison lions, which are considered dangerous to people and livestock." ■

Conservationist Theodore Roosevelt on a lion hunt with Masai hunters.

ENFORCEMENT

How to turn in a poacher

Hunting is now in full swing across Montana. So is poaching. Brian Shinn, coordinator of the TIP-MONT Program (Turn in Poachers), says that hunters and others who spot illegal actions can help game wardens by obtaining as much information as possible about a violation before calling the TIP-MONT hotline.

"When you see a violation, observe and gather as many facts as possible," he says. Write down the date and time of the violation; the geographic location, road name, county, town, city, or landmarks; and a vehicle description, especially a license or boat hull number. "If you can't get the license number, look for any unique identifying marks, like a dent in the door, a bumper sticker, or a broken antenna or taillight," Shinn says.

If possible, also note the violator's apparent weight, height, hair color, eye color, and age, as well as clothing. Look for specific traits such as the type of glasses or style of moustache.

Finally, note what fish, wildlife, or other resources were damaged or stolen. What happened to them? Where are they now?

Informants may remain anonymous. "We are dedicated to protecting the identity of informants, even to the point of not continuing with a prosecution if by doing so it would compromise the promise of anonymity," Shinn says.

If the information provided leads to an arrest, informants could be eligible for a cash reward up to $1,000.

To report a violation, call 1-800-TIP-MONT (847-6668) or report online at fwp.mt.gov (click the "Enforcement" tab, then look for "Report Violations Online"). ■

Types of violations to report

- poaching
- hunting or fishing out of season
- trespassing
- exceeding game bag limits
- driving vehicles in nonmotorized areas
- violating Block Management Area rules
- illegally introducing fish species

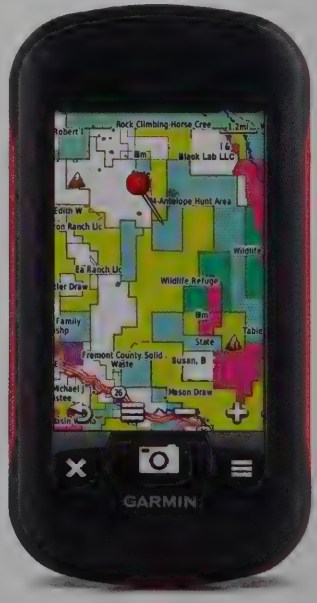
HUNTING

The whole (hunting) world in your hands

Among the most revolutionary technologies to benefit hunters in the past decade are computerized land ownership maps for GPS units and smartphones. Several companies now sell programs for Garmin GPS devices that show public and private property boundaries, landowner names, and topographic features, as well as layers with features such as hunting districts and Block Management Area boundaries. The map layers use data produced by state and federal agencies such as FWP and the Bureau of Land Management.

With the downloadable maps, hunters can now locate exact boundaries of public hunting lands and be sure they aren't trespassing on private property. Or they can find the names of landowners they may want to contact to ask permission for private land access.

Find retailers by Googling "GPS Maps Montana." ■



CLOCKWISE FROM TOP LEFT: CARTOON ILLUSTRATION BY MIKE MORAN; ARIZONA GAME & FISH DEPT.; SHUTTERSTOCK; SHUTTERSTOCK; PUBLIC DOMAIN; SHUTTERSTOCK; THEODORE-ROOSEVELT.COM

FOOD PRESERVATION

Great devices that suck

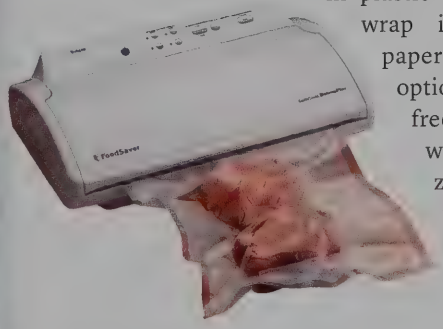
You wait all year to go hunting, spend all fall in the field, and finally end the season with a freezer full of venison, waterfowl, and upland birds.

Nice job, but don't forget this important last step: packaging the meat to prevent freezer burn.

Freezer burn happens when frozen meat dries out as the frozen water molecules vaporize and evaporate. The meat doesn't spoil, but lack of moisture damages the taste and texture.

The key to preventing freezer burn is to package meat and fish with as little air as possible. The best method is vacuum sealing. Vacuum sealers suck all the air from plastic bags before using heat to create an airtight seal. You can find the devices for as little as $50, but you'll need to spend at least $150 for one with enough power to suck air from around duck carcasses and venison shanks. If you can't afford a vacuum sealer, consider splitting the cost with some buddies.

Another way—though less effective—to keep freezer burn at bay is to, first, tightly wrap game in plastic wrap, then wrap in butcher paper. Another option is to freeze fish and waterfowl in ziplock bags that are then filled with water. ■



HUNTING

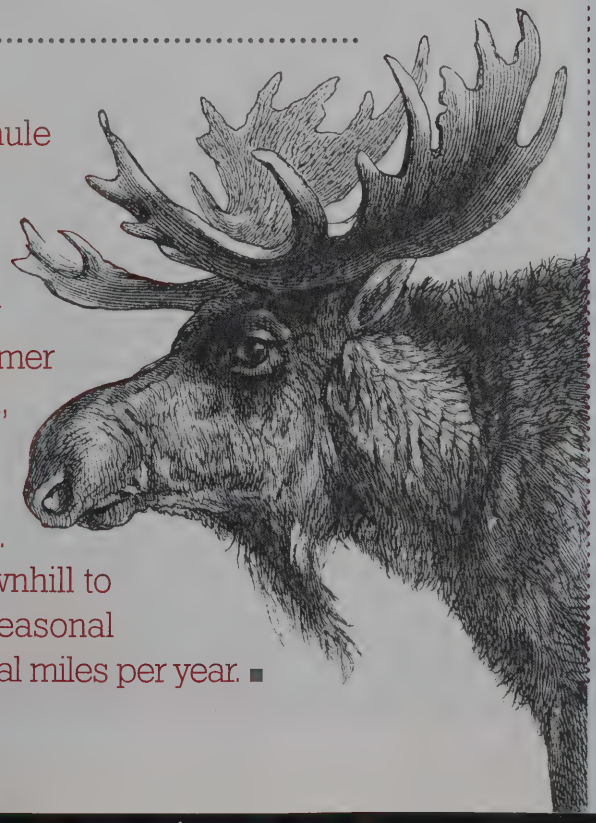
Put a wild turkey on the holiday table

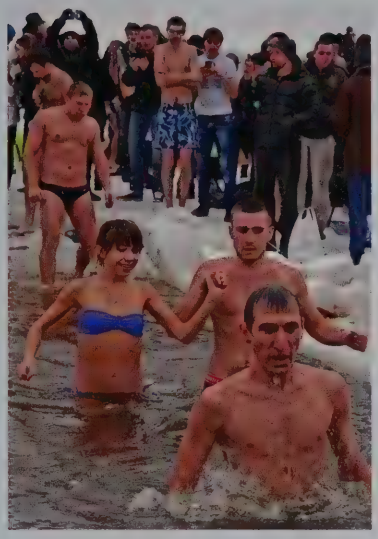
Montana's fall wild turkey season runs through the end of the year, so hunters still have plenty of time to bag their holiday bird. In eastern and northwestern Montana, hunters can buy an over-the-counter license anytime. In southwestern Montana, a special permit is required (the application deadline for which is July 30). Owing to low numbers, turkey hunting is not allowed in much of central Montana.

While only males (toms) may be killed in spring, both toms and hens may be shot in the fall. During spring, hunters lure toms into shotgun range by imitating the call of a lovelorn hen. One tactic during the fall is to break up a flock of a hen and her poults and then lure a young bird into shotgun range by imitating the "lost" call. ■

Moose on the move

Each winter pronghorn and mule deer migrate up to several hundred miles to find more favorable conditions. Moose migrate too, though not nearly as far. The large ungulates summer in high-elevation forests. Then, in fall, they move to staging areas at mid-elevation in or near clear-cuts or burned areas. In winter, moose continue downhill to low-elevation forests. These seasonal migrations average about 12 total miles per year. ■





The cold truth about cold water

Jumping into ice water can be an invigorating way to celebrate the new year or raise money for good causes, often known as "Polar Plunge" events.

But accidentally falling into cold water—through the ice or from a boat—can be deadly. Ice safety experts say the danger is immediate. When a person gasps and hyperventilates with "cold shock response" upon immersion, they can suck water into their lungs and drown. Within the first 30 minutes, arms and legs grow so cold that even strong swimmers are unable to keep their head above water. After a half hour, the body's core temperature can drop so low that the victim loses consciousness.

How to keep yourself and your family safe on the ice or when boating in cold weather:

- Wear a life jacket when boating.
- Prevent capsizing by reducing speed in rough water.
- Don't drive on ice. If you do, be sure the ice is at least 15 inches thick for a medium pickup.
- Don't walk on ice less than 4 inches thick.

If you do fall into cold water and are wearing a life jacket, slow heat loss by crossing your ankles, crossing your arms over your chest and holding your shoulders, and drawing your knees to your chest. Then lean back and, to the extent possible, try to relax. ■

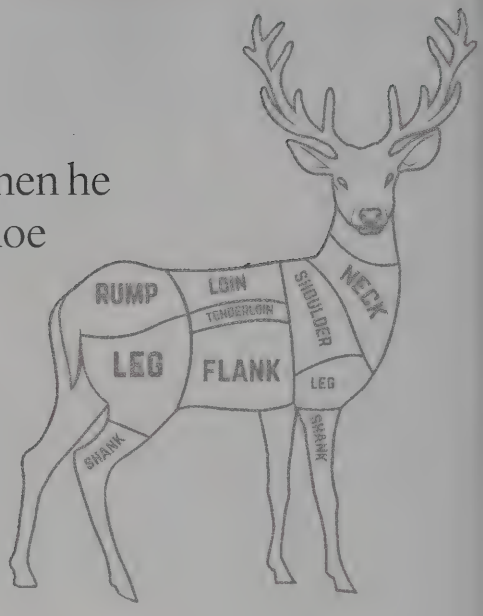
Gardening with a Gun

Locavores—some of them ex-vegetarians—are adding organic, free-range game meat to their fall harvest.

By Tom Dickson. Photos by Paul Queneau.

READY TO HARVEST Greg Price, who manages a farm in Missoula, represents a new breed of hunter in Montana and across the United States. "Hunting for me fits perfectly with my previous experience of raising and canning my own fruits and vegetables with my own hands," he says.

Greg Price of Missoula didn't shout with joy when he killed his first big game animal, a mule deer doe in the Blackfoot Valley in 2008. "I definitely had mixed emotions when I saw it lying there dead," says the 47-year-old hunter, who manages a farm that raises vegetables for nonprofit organizations. "But then I started thinking about all that meat I had just harvested, on my own, and started to sense a deep emotional satisfaction."



Other new hunters in Montana and across the United States are also feeling the warm glow that comes with procuring their own venison. From Oregon to New York, more and more people are adding game meat to their pantries, part of a growing locavore movement that emphasizes eating healthier food grown and harvested closer to home. Fueling the trend are book authors and TV personalities who tout the health and ethics of eating only what they themselves kill.

Seemingly from out of nowhere, hunting animals for meat has suddenly become not just acceptable, but hip.

Locavore movement

Choosing organic meat and vegetables over mass-produced, chemically enhanced foods is nothing new. But the notion of eating only "locally sourced" food took off in the early 2000s as an outgrowth of the rapidly growing public interest in organics. Locavores (the word is derived from "local" and the Latin word for "devour") strive to grow and raise their food themselves, then purchase the rest grown and raised as close as possible to where they live. Concern about animal welfare and the energy needed to import food from faraway places are other locavore motivations.

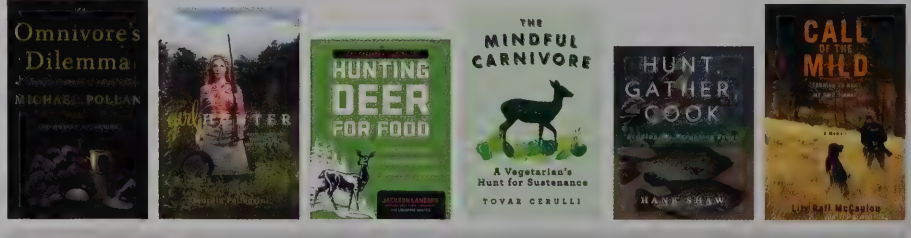
For all these reasons, says Price, he decided to add a rifle to his food-harvesting implements. Previously a vegetarian, he began eating meat 18 years ago when a friend offered him a grilled elk steak. He started hunting eight years later and has since harvested several deer and elk. "Hunting for me fits perfectly with my previous experience of raising and canning my own fruits and vegetables with my own hands," he says.

Price has since shown other Missoula locavores how to hunt and track animals. "Many people who move to Montana come from the suburbs of the Midwest or East," he says. "They may want to hunt for meat but don't have any experience with it, not having grown up here. Having a mentor is a huge help."

The urban hunter

The popularization of hunting as an ethical and logical extension of the locavore philosophy started in 2006 with Michael Pollan's bestselling *The Omnivore's Dilemma*. The book included an account by the self-described liberal-minded "indoorsman" of hunting and killing a wild boar, which he and a friend then butchered and turned into smoked hams, prosciutto, and bacon. After Pollan came a slew of other books that touted hunting as a way to obtain free-range, humanely harvested meat. In *Girl Hunter*, Georgia Pellegrini tells of killing domestic turkeys for a restaurant where she worked as a chef, and soon finding herself "going one step farther down this path, away from the grocery aisle and into the wild." Lily Raff McCaulou, author of *Call of the Mild*, lived in New York City before moving to Bend, Oregon, and becoming a hunter in order to feel more connected to her meals and the land. "You'd be hard-pressed to find an unlikelier hunter that me," she writes. "I'm a woman, and married to a man who does not hunt. I grew up in a city, terrified of guns."

In *The Mindful Carnivore*, vegetarian-turned-hunter Tovar Cerulli eventually realized that because "some harm to animals was inevitable in even the gentlest forms of agriculture, integrity and alignment could only come from taking responsibility for at least a portion of that killing." Virginian Jackson Landers, author of *The Beginner's Guide to Hunting Deer for Food*, was born into a vegetarian household but today teaches workshops on locavore hunting and home butchering. He wrote his book for "the urban man or woman who loves meat but thinks that there might be more to that



READ 'EM AND EAT Michael Pollan's bestseller *The Omnivore's Dilemma* came out in 2006, quickly followed by a series of other books extolling the healthy and culinary benefits of hunting.

DEER CUTS ILLUSTRATION BY SHUTTERSTOCK

Tom Dickson is editor of Montana Outdoors. Paul Queneau is a photographer in Missoula.

whole world than just a bovine steak wrapped in plastic."

One of the most influential chefs-turned-hunter is San Francisco–based Hank Shaw, whose award-winning blog *Hunter Angler Gardener Cook* lists more than 100 recipes for game dishes along with essays on hunting and the ethics of killing wild animals.

Another pop culture hunting presence is TV personality Andrew Zimmern, host of the Travel Channel's popular *Bizarre Foods with Andrew Zimmern*. Also a spokesman for Target and General Mills, Zimmern told *Petersen's Hunting* that he hopes his pro-hunting message sells. "I sort of see my hunting life, as documented on television and so forth, as a gateway for my audience," he said. Further spreading the "eat what you kill" philosophy is Joe Rogan, actor, TV host, and author of the widely popular *The Joe Rogan Experience* podcast. Rogan started hunting three years ago when Steve Rinella, host of the Sportsman Channel's *MeatEater*, invited him to hunt mule deer in the Missouri Breaks of central Montana. "I've eaten meat all my life, but I had never bridged the disconnect between a living animal becoming food," Rogan later wrote on his blog. "I've always let other people do the work for me, and for a long time I've contemplated that this disconnect is probably not only mentally unhealthy but dishonest as well."

Hunting for food received its highest profile endorsement when Facebook co-founder and CEO Mark Zuckerberg announced in 2011 that the only meat he would eat for a year would be from animals he killed himself. "I think many people forget that a living being has to die for you to eat meat," he told *Fortune*, "so my goal revolves around not letting myself forget that and being thankful for what I have." In addition to killing a sheep, pig, and chickens, Zuckerberg reportedly acquired a license and shot a bison (whereabouts unknown).

Hunter numbers up

The growing popularity of hunting for food may have also boosted hunter numbers after decades of decline. According to U.S. Census surveys, participation in hunting had dropped during the 1990s and early 2000s, from 14.1 million in 1991 to 12.5 million in 2006. But then, surprisingly, numbers rose more than 9 percent in the next five years, to 13.7 million. (Montana's hunting numbers during the past 15 years since FWP began accurate tracking have remained steady, though declining slightly per capita.)

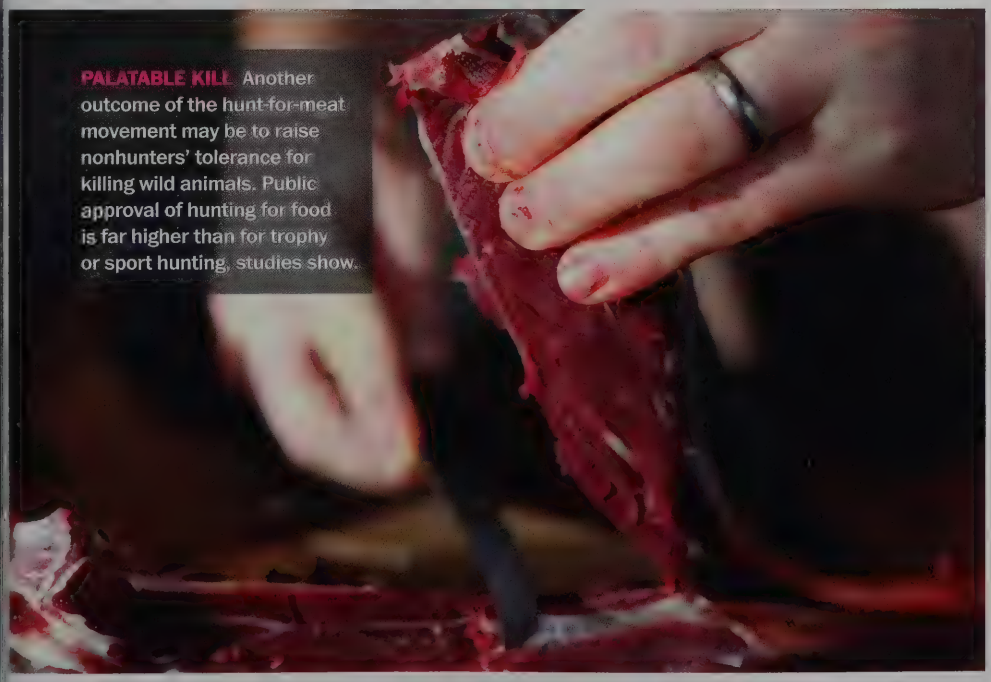
Why this nationwide uptick, the first in 25 years? According to a national survey of 1,000 hunters published last year by Responsive Management, a research firm specializing in outdoors issues, the number of hunters hunting for meat more than doubled from 16 percent in 2006 to 35 percent in 2011. Some of that could be due to the Great Recession. But part also could be due to the growing locavore movement as well as more female hunters, say research analysts with the firm.

The total number of women hunters grew by 25 percent between 2006 and 2011, after holding steady for a decade, according to Census Bureau statistics. At last count, 11 percent of all U.S. hunters were women, compared to 9 percent in 2006. A recent survey by Responsive Management found that women are twice as likely as men to list "for the meat" as their primary motivation for hunting.

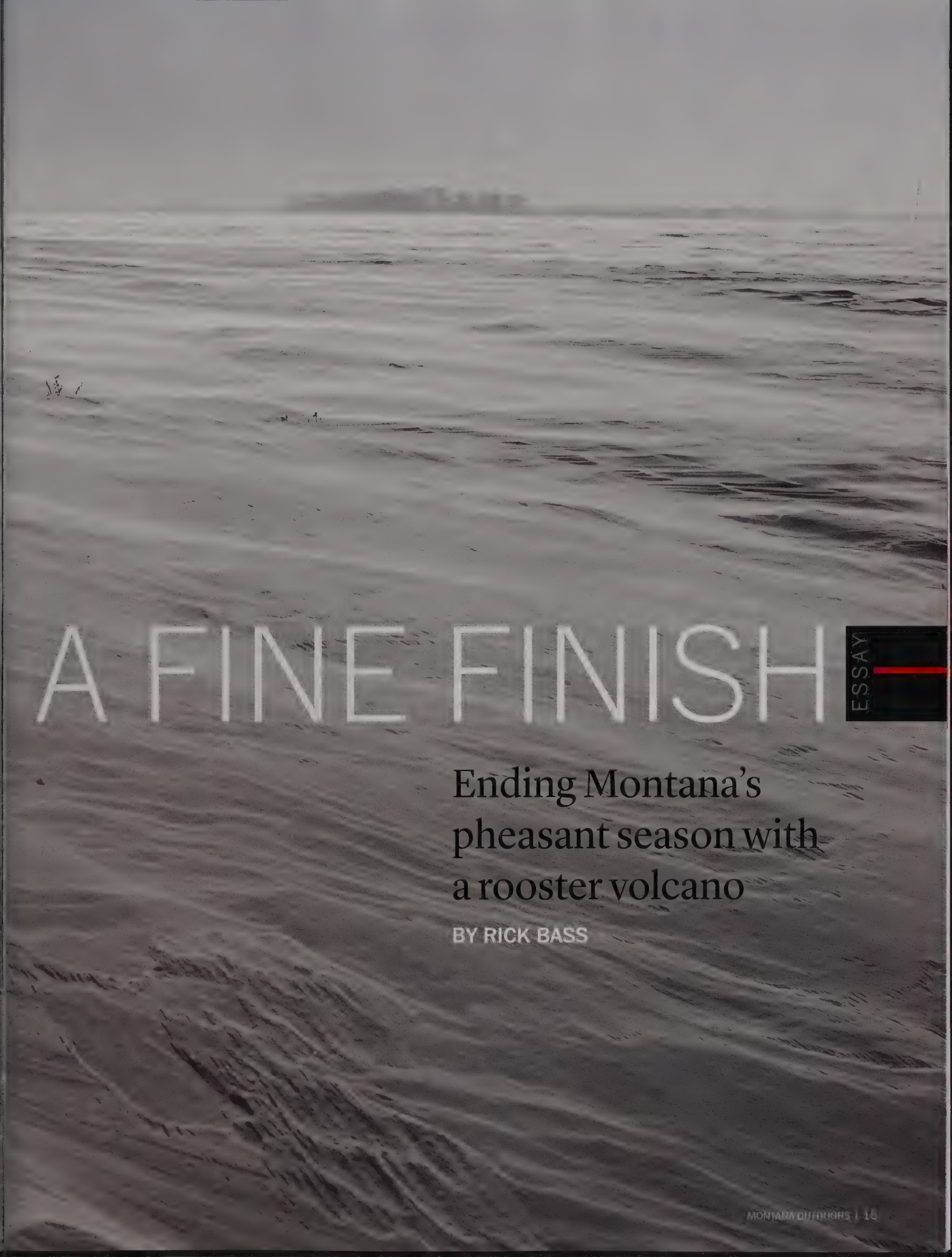
The growth in gun-toting gardeners may also make hunting more palatable to the nonhunting public. A study by Responsive Management in 2006 found that, of American adults nationwide, the highest approval rating for hunting (86 percent) was when it was done for meat. The lowest approval rating (28 percent) was hunting for trophies. The study meshes with another survey conducted in 1980, when Stephen Kellert of Yale University found that the general public was far more likely to support the killing of game animals to obtain food rather than for sport or to put a rack or pelt on the wall.

It was certainly meat, not antlers, that attracted Joe Naiman-Sessions, of Helena, to hunting. Five years ago he moved to the West from Florida, "and got into the healthy agriculture movement and thinking about what people were putting into their bodies," he says. He began gardening and then started raising and slaughtering chickens for food. "I soon saw hunting as a logical extension of all that," he says.

Last winter Naiman-Sessions took the FWP Hunter Education course, and he recently bought a big game rifle. On opening day he'll be in the field with a friend who has offered to show him the ropes. "I'm looking forward to learning how to stalk and track deer and elk," the 30-year-old neophyte hunter says. "But my main goal is to stock my freezer with ethically harvested and sustainable organic meat."



PALATABLE KILL Another outcome of the hunt-for-meat movement may be to raise nonhunters' tolerance for killing wild animals. Public approval of hunting for food is far higher than for trophy or sport hunting, studies show.



A FINE FINISH

ESSAY

Ending Montana's pheasant season with a rooster volcano

BY RICK BASS

November is the month, it is hoped, of pheasant-hunting proficiency; in theory, you've gotten better with practice and are in better shape, as are the dogs. And this is good, because the snow is down now, so that you're hunting with cold fingers. A cup of coffee in the morning is as useful as a hand warmer as it is for awakening, and given the alkaline taste of prairie coffee to a northwestern Montana hunter spoiled on clean, sweet water, maybe this is the highest and best use of this brew.

The prairie is abandoned now by almost all but the serious bird hunters—the rest are stalking elk and chasing deer, perusing magazines and cookbooks for Thanksgiving recipes, and beginning to think of other coming holidays, too—beginning to think, already, about starting to wind things down.

You push on. The birds are exquisitely wild and untrappable in November, and they can be found hiding in the gnarliest places: cottonwood thickets alder-snapping your cold face, frozen cattails mush-muck swampsucking at your boots. The dog points and the rooster gets up and blows out, spraying a plume of cattail fluff so thick in his exodus that it looks like you've already shot and he's trailing feathers.

And after you do shoot, and the real poof! of feathers tears loose, the cattail fluff is still drifting into your face, getting caught in your three days' beard, your hair, your eyebrows, and even your mouth, so that you can taste the swamp; and now you can smell it as the dog muscles ahead into the cattails and then comes thrashing back, rooster in his mouth, shaking a new vapor trail of cattail fluff coming at you this time, instead of going away; and you can smell the marsh, the incredibly rich scent of it, from where the dog's feet are splashing in the semi-frozen mud. Cattail fuzz coating your face like a wolfman's, you crouch down and pet, and brag on your dog.

By December, anything that's left on the prairie is one hard-assed resident, human or otherwise. The migrants are long gone—it's only four months now till the first of them begin drifting back. And now that Montana's season's been extended all the way to New Year's Day, my oldest daughter, Mary Katherine, and I decide to close out the second-to-last day of the season on the last day of the year.

We leave the afternoon before; the plan is for us to arrive late that night, check into the hotel, get up and hunt a half-day in the morning, then drive on back home in leisurely fashion, arriving in time for our New Year's Eve party. The prairie—indeed, all of eastern Montana—should be ours, an expanse that should be all the more unpopulated by the storm warnings that are brewing: big snow and big cold, scheduled to arrive about the time we are returning. It's our plan to slip back over the pass just ahead of it.

We get a late start and stop off in town to rent a batch of videos for Mary Katherine to watch on the long journey through the night and back. She got one of those little portable DVD players for Christmas, and it's a particular feeling of insularity to leave town, striking out on the dark road, with Mary Katherine wrapped up in her big blanket, seat-belted in, with the little blue flicker of movie screen washing over us and the tiny cinema sound of actors' and actresses' dialogue, as if we are somehow still at home, ensconced on the couch.

And yet there is also very much the feel of an adventure, a journey. There are no other travelers; the night and the state are ours.

One reason for our solitude is that the storm has blown through a few hours ahead of schedule, with a speed and intensity even greater than predicted, howling and scouring, raking the Rockies with wind and ice and snow—lots of snow, which whirls in all directions and is shoved up in drifts and mounds completely unbroken by the passage of any other vehicle, much less a snowplow. I try to drive straight through the first drift, assuming the snow to be loose and powdery, but the wind has packed it down to the consistency of a ski hill, and we bump over it, blasting through it, as if excavating a mogul; and the road is filled with these snow dunes, as if there is no more road and we have traveled back into the past, into a time before roads existed, and yet are stubbornly and perhaps foolishly continuing to try to impress our ways of being upon the landscape, insisting that there be roads where perhaps there no longer are, or never were, any.

The snow howls past sideways, the streams and currents of it so steady and so hypnotizing that it begins to seem we, not the snow, are traveling sideways. We plow through one low hill after another, all but creeping, and eventually the little town appears, where our

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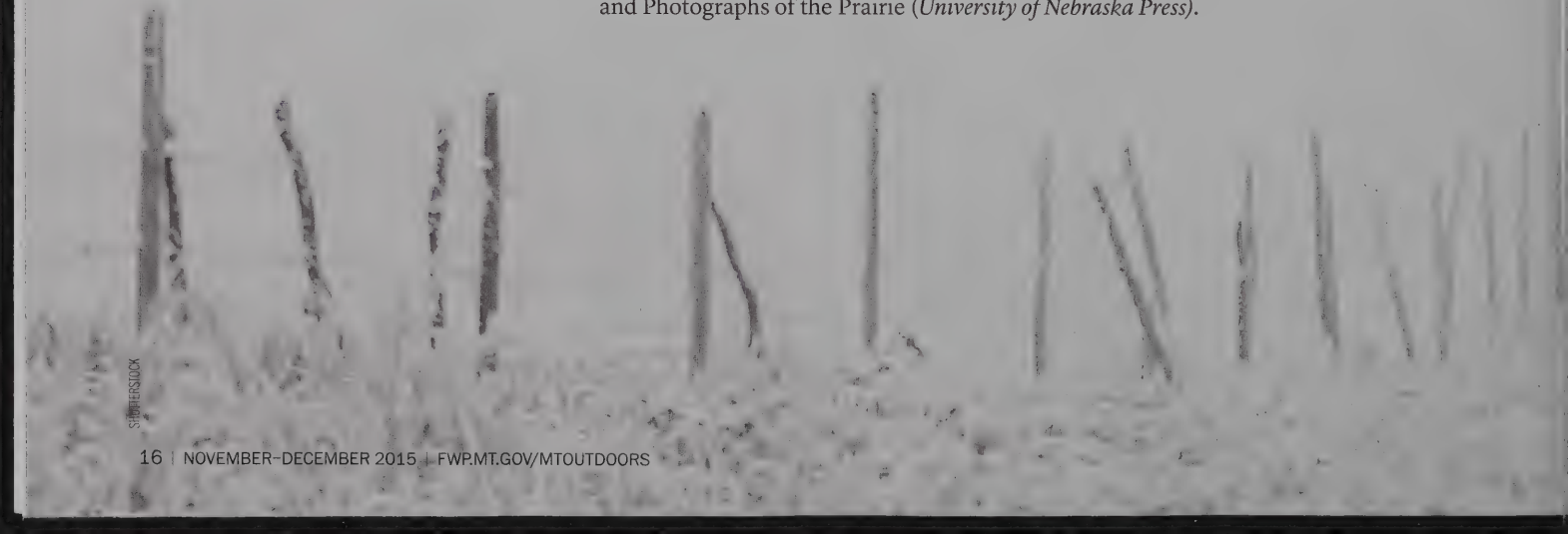
Writer Rick Bass wrote this essay while living in the Yaak Valley, his home for many years. He now lives in Pray. A longer version first appeared in The Wide Open: Prose, Poetry, and Photographs of the Prairie *(University of Nebraska Press).*



SHUTTERSTOCK

room is unlocked—there are no other travelers—and I carry Mary Katherine, who is asleep, inside. She wakes briefly to the stinging, howling slant of snow. I bring the dogs inside—the room is warm—and fall deep asleep into a rest that is almost more satisfying than the hunt itself—as if, here at the end of December, it might almost be enough to turn around and go right back home.

We awaken to the bright light of day three hours later, the entire prairie blanketed with white and that north wind still howling. The car itself is a giant dune, shrouded in a crystalline ice shell, and we put on every article of clothing we have brought, chip our way into the car like mountaineers, clearing window views all around, and then drive out to our hunting spot.

It is ridiculously, unbearably cold. No one is out, nor is there sign of any life whatsoever. The farmers and ranchers have brought their stock inside—perhaps into their living rooms, beside the fireplace, it is so cold. I sip coffee while Mary Katherine sips hot chocolate, and we share a frozen chocolate donut.

This will not be a long hunt.

I drive out into the stubblefield and park angled to the wind, leave the engine running and the heater on, with the windows well cracked for ventilation. I collar up Point, and like the Abominable Snowman or the Pillsbury Doughboy, I set out downwind toward a levee, on the leeward side of which I think there might be some roosters taking refuge from the storm. Point looks around almost in alarm for a second—am I serious?—but when he sees that I am, he lopes ahead, trying his best. Surely any scent molecules will be long ago atom-smashed, sliced and diced, and scrubbed scentless by this wind; but he pushes on anyway, playing it out.

We get lucky; we find them within 16 minutes, just as I am about to head back, unable to trudge any farther, big boots breaking with each and every step through the scoured, crystal-thin sheet of ice that covers a foot of frozen powder below.

Point has run out a little too far ahead of me, turning back into the wind, and is utterly unable to hear my whistle. One tree stands at the base of that levee. Ought to be a pheasant there, I think. Instead there are between two hundred and three hundred, and they seem to be all roosters.

They erupt, and continue erupting, like some surreal and supernatural blossoming fireworks spectacle, with little Point standing there in their midst, looking straight up into the snow and the swirling pheasants as if he has stepped into a dream. He looks like a porcelain dog, like some little figurine caught in one of those shake-up snowflake bubble-globes, and the pheasants just keep unfolding into the sky, cackling and sailing away, like the world's greatest and longest chain of dominoes—ten birds' departure triggering the flight of another twenty, which triggers the departure of another thirty, which then sends up another forty. I am just a tad too far away to shoot but am running hard, trying to get there before the party is over.

Pheasants are sailing past me now at about a hundred miles an hour—terror-stricken, I think, by their own velocity. I can see some of their eyes, briefly, through that screen of snow—roosters whirling through the sky like a hundred yard-bags of autumn leaves dumped into the howling wind—and I swing the gun on one and fire twice, but I am a century behind him. The snow and wind absorb the shot pellets as if I've fired into the void, and I peel my gloves off, fumble for new shells, and attempt to reload, while the clatter of pheasants, the ceaseless volcano of them, continues to blow, all issuing from beneath that one lone tree.

I fire twice more and miss—my cannonade has authorized still more birds to leap up, every pheasant in the county hunkered beneath that one lone tree—and somehow I manage to load again. Now Point has broken from his surreal trance and is dancing, leaping, snapping at the last of the trail-away pheasants, his mind suddenly unhinged by the bounty, the excess, of that which he has discovered—and I fire twice more at what turns out to be the last pheasant leaving, and the bird tumbles—more, I think, from a heart attack, or from the great cold, than my shooting—and Point plows out into the field of cattails frozen as stiff as stalks of ice, cracking and snapping them, seizes the big rooster, and then comes racing back up the levee as if nothing strange has happened, as if it's just another pheasant hunt.

They erupt, and continue erupting, like some surreal and supernatural blossoming fireworks spectacle, with little Point standing there in their midst, looking straight up into the snow and the swirling pheasants as if he has stepped into a dream.

I break the gun open and grab the heavy bird with my free hand. I'm too cold to even try to shove it into my game bag. The car is only a few hundred yards away, and we break into a clumsy run across the frozen prairie.

The heater is roaring, Mary Katherine is still watching her movie. I kennel Point and climb in myself, and we drive home, where we will arrive just in time for our New Year's Eve party. Fourteen hours' driving, twenty minutes of hunting, one bird. And all the way home, we visit about life and the dogs and the holidays, and why we live where we live.

DANGER AROUND EVERY BEND

HOW SPORTING ART'S "PREDICAMENT SCENES" HAVE SHAPED OUR PERCEPTIONS OF THE OUTDOORS

BY TODD WILKINSON

During my life, I've had more run-ins with doom than I can count. I've seen dozens of bear, lion, tiger, elk, elephant, jaguar, rhino, shark, whale, piranha, and leopard attacks. I've watched people engage in mortal tangles with angry crocodiles, agitated moose, and poisonous snakes. I've winced as paddlers, anglers, hikers, and cowboy pack trains contend with every kind of imminent peril. **And I've enjoyed every second of it.**

The first grizzly mauling I ever witnessed—well, *almost* witnessed—happened when I was a boy sitting in a small-town barbershop waiting for a buzz cut. In front of me stood a hunter relieving himself in the woods. A gigantic silvertip grizzly appeared out of the shadows. The monstrous bruin towered on hind legs, as fate would have it, between the sportsman and his rifle.

DANGER ON THE TRAIL
H.C. EDWARDS (1868–1922)

Riveted with excitement, believing the hunter was surely a goner, I closed my eyes at the thought and have wondered ever since what became of both man and beast.

It turned out that the barbershop delivered an unending bounty of similar hair-raising episodes. No one actually died or suffered serious harm, because none of those primal melodramas played out in real life.

Instead, they appeared as painted stories—known as "predicament scenes"—adorning the covers of popular hunting and fishing magazines, sporting art calendars, and product advertisements. Occasionally, I'll still stumble upon these enthralling depictions of outdoors life in antiques stores or garage sales.

Predicament scenes shaped how my impressionable mind thought about the great outdoors. I'm certainly not alone. Several generations of Americans who love the outdoors grew up on predicament scenes and their depiction of the backcountry as a treacherous place filled with dangerous beasts around every bend. That exposure created no small amount of awe for the natural world. It also distorted public perceptions of the large carnivores that loomed so prominently in the artwork. If every grizzly bear or wolf a hunter spotted on the trail was a certain man killer, as so many paintings conveyed, the only logical response was to kill every grizzly, wolf, and other large carnivore that could be poisoned, shot, or trapped. And that's pretty much what America did.

Predicament paintings were not just ways to thrill readers and sell outdoors gear. They also fueled the nation's policy of predator extermination. Only in recent years have we begun to rethink that approach and realize that what was depicted on the barbershop calendar didn't necessarily take place in the real world.

Bozeman writer and editor Todd Wilkinson is author of the new book, Grizzlies of Pilgrim Creek: An Intimate Portrait of 399, the Most Famous Bear of Greater Yellowstone.

Masters of impending mayhem

My favorite predicament scene is a harrowing depiction by famed American artist N.C. Wyeth, a prolific painter of the early 20th century. The piece, titled *Alaskan Mail Carrier*, portrays a postman who has trekked solo across a remote frozen lake on snowshoes. Clad only in a light wool jacket, the carrier must have realized he'd been trailed by a pack of hungry wolves. He decides to stand his ground. Unfortunately, ten wolves are rapidly closing in and he's armed with only a revolver.

Wyeth's painting—actually conceived to summon our attention to an advertisement—shows the aftermath: Eight wolves lay dead and bloody in the snow, but two more loom menacingly.

What would you do in his place? The artist wants us to fill in the blanks.

Never mind that there's no record of such an attack ever actually happening. Wyeth's story—and those of all predicament art—are pure fiction. Yet the scenes were remarkably clever visual devices meant to manipulate perceptions and behavior—as potent as any television commercial or pop-up ad on our computers today. "By design, those paintings, carefully choreographed by ad agency art directors, made the wild seem wilder at a time when most Americans were living in cities or moving to the suburbs," the late great art historian Walter A. Reed told me back in the 1990s when I interviewed him for a story on sporting art. "Rather brilliantly," Reed said, "predicament scenes preyed on our dread of the unknown and led us to believe that, if we really wanted to be safe, we needed the particular product being sold. For example, some ads told us that without a Winchester clutched in our hands, we'd be as good as dead if we happened to run into wolves or grizzlies."

"Predicament scenes preyed on our dread of the unknown and led us to believe that, if we really wanted to be safe, we needed the particular product being sold."

To ensure that predicament scenes carried emotional punch and impact, New York City advertising firms and their clients—which included gun, ammunition, and outdoors gear and clothing manufacturers—enlisted some of the nation's top illustrators to create advertising imagery during what's known as the Golden Age of Illustration, from the 1880s through the 1950s.

For generations, the most prestigious predicament scene assignment was to create pieces for the annual Remington Arms calendar and related advertisements. Among those who held the honor was Bob Kuhn, counted among the greatest animal painters

PREDICAMENT COVERS IN PULP FICTION

HELP! WEASELS! Pulp and men's adventure magazines of the 1920s through '50s tantalized readers with "true-life" stories of wild animal attacks. Typical covers depicted nature as savage and terrifying.

ALASKAN MAIL CARRIER

UNTITLED
PHILIP R. GOODWIN (1881-1935)

> Paradoxically, sportsmen influenced by those depictions helped nearly wipe out the very thing they found most thrilling about the outdoors: predators.

who ever lived. I was fortunate to interview him several times before he died in 2007.

Yes, Kuhn told me, some predicament scenes could border on the absurd, but the intention was to give viewers something to talk about. "When we were painting back in Connecticut, none of us had actually seen a moose swamping a canoe as it moved through rapids with people in it, nor did any of us personally get attacked by grizzlies, but we did do a lot of asking, 'What if this happened or that?' And we made those questions the subjects of our paintings. Sometimes the ideas were our own, and other times they came from art directors or from the client."

Another master of predicament art was Philip R. Goodwin. Goodwin was an Easterner who designed the horse and rider logo for Winchester Repeating Arms Company and Marlin Firearms and provided illustrations for Jack London's *The Call of the Wild* and Theodore Roosevelt's *African Game Trails*. He was enlisted by Browning, Remington, and other gun and ammunition manufacturers to create dramatic visual scenarios. Some were slightly over the top, like *The Right of Way,* which depicts a hunter on a cliff coming face to face with a grizzly bear the size of a Clydesdale. Goodwin's trademarks were canoeists rolling their boats as angry bull moose approached, or bears coming around corners and startling hunters. The artist's point of view was often to put us behind the subject's shoulder so that we feel the same emotions as the hapless outdoorsmen in the painting.

Predator perceptions

Though highly entertaining, the often-misleading impressions of outdoors life created by vintage predicament scenes may have unwittingly undermined the nation's conservation movement. Dramatic scenes adorning calendars, posters, and book and magazine covers convinced millions of Americans during most of the 20th century that man-eating grizzlies, wolves, and cougars lurked around every corner. In fact, those species were fast disappearing from throughout the Lower 48 states.

By the 1970s, wolves had been eradicated from every state except the northernmost portion of Minnesota. Grizzlies were soon to be listed under the federal Endangered Species Act, and cougars were gone from 90 percent of their historic range. Paradoxically, sportsmen helped nearly wipe out the very thing they found most thrilling about the outdoors.

Not until the past few decades have states begun to re-examine their policies toward predators and allow meat-eaters back onto the landscape. It's taken a long time for people to realize that those calendars on barbershop walls depicted Easterners' imagination of outdoor life in the West, not what actually occurs here.

Even with restoration of large carnivores in parts of the West, we know today that wilderness travelers have a much higher chance of dying in a car crash on the way to the trailhead than they do of being attacked by a grizzly bear. And that there has never been a documented case of a person being killed by a healthy wild wolf in the Lower 48.

Just as we recognize that no zombies lurk in our basement yet nonetheless love being scared by movies about the living dead, so do we still thrill at artistic depictions of dangerous life outdoors—even while knowing that it's not all that dangerous. Today's sportsmen and sportswomen are no less enthralled by tales and images of outdoor peril than were their counterparts 100 years earlier. And using fear and awe of the outdoors to sell products and publications has diminished only slightly from when America's first sporting magazines featured hunters reaching for their carbine as a mother bear and her two cubs approached the campsite.

As it has since 1940, *Outdoor Life* continues to run its popular "This Happened To Me" page, featuring near-death adventures survived by the magazine's readers. The publication's March 2015 "Danger Issue" warned readers: "Survive the Wild: 7 Essential Skills You Must Learn." In his introduction, editor-in-chief Andrew McKean writes, "There are few populations of humans who have more opportunity to join the ranks of disaster victims than hunters, fishermen, and those of us who seek the things that can only be found outdoors, often in the worst weather."

In other words, don't be afraid of venturing out into the natural world—be *very* afraid.

A DISPUTED TRAIL
CHARLES M. RUSSELL (1864-1926)

ALL FEATURED PAINTINGS ARE IN THE PUBLIC DOMAIN OR PUBLISHED WITH THE PERMISSION OF THE ARTIST

CRASH
JOHN SEEREY-LESTER (1965-)

Left to the imagination

One of the most heralded modern purveyors of the predicament scene is British American artist John Seerey-Lester. "I love predicament scenes because, if you do them well, they can make the hair stand up on the back of a viewer's neck," he says. In his painting *Crash*, Seerey-Lester shows a gold prospector awakened by a massive bull moose towering over the campsite. Several of his paintings depict grizzly bears peering into canvas tents at night. Are they just curious, or are they *hungry*?

Yet, as the artist notes, encounters with animals—dangerous or otherwise—are becoming increasingly rare in much of the world where human population continues to grow and development sprawls across the landscape. "As wildness pulls farther and farther away from the daily lives of the seven billion people on the planet, contact with nature, for most people, is left to the imagination," says Seerey-Lester.

> "I love predicament scenes because they can make the hair stand up on the back of a viewer's neck."

Yes, danger sells. And we can't get enough of it. It stimulates the amygdala, the lizard part of our brains, firing the synapses that determine whether we'll engage in fight or flight. The threat of harm or death—even virtually, as in video games or on sporting magazine covers—causes adrenaline to surge through us, igniting our will to survive.

We love to be scared to death. It makes us feel more alive.

SHOULDERING ITS RESPONSIBILITY

FWP proposes additional hunting seasons to reduce the size of burgeoning elk herds in parts of Montana.

BY TOM DICKSON

Chase Hibbard is nearing the end of his rope. "We don't mind being hosts to elk," says Hibbard, whose family owns a large ranch in Cascade County. "But we now have a herd of 300 to 500 coming down in late summer feeding on our irrigated alfalfa fields. We've run out of control options, and it's come to a point where elk are taking money out of our pocket." The Hibbards aren't the only landowners frustrated by fast-growing elk herds. In areas across Montana, the overabundant ungulates are knocking down fences and consuming haystacks and pasture meant for livestock. Elk populations have grown too high in 80 of Montana's 138 elk management areas that have population objectives, say state wildlife officials. In some areas, elk numbers are now five to even ten times greater than what the land can support and landowners will tolerate.

Concentrated elk also increase the risk of brucellosis spreading to cattle in areas where the disease is present, like the Paradise Valley. More than half the elk in a portion of the valley last year tested positive for exposure to the disease. "It's a huge concern in these areas whenever elk come into contact with cattle," says Quentin Kujala, a senior wildlife official with Montana Fish, Wildlife & Parks.

Why don't landowners with elk problems simply allow more public hunting? Many, like the Hibbards, do. But sometimes relatively few elk stay on ranches open to hunting during the general five-week firearms season. The mobile animals find refuge on nearby properties with little or no public hunting to disturb them. Then, come December, they move elsewhere and compete with livestock for food. "Successful elk management requires neighbors working with neighbors to ensure numbers can be managed, versus elk finding refuge during the hunting season, then spreading out afterwards and growing in number," says Ken McDonald, head of the FWP Wildlife Division.

Tom Dickson is editor of Montana Outdoors.

Feeling pressure from landowners and lawmakers to increase elk harvest in some hunting districts, FWP has proposed a new option that adds additional seasons to Montana's regular firearms elk season. The department would use these "shoulder seasons" to pare down overabundant elk herds by giving hunters additional days afield. "We heard loud and clear from the legislature that getting these populations down to objectives is a top priority, and this proposal is meant to do that," says McDonald.

NOT WORKING

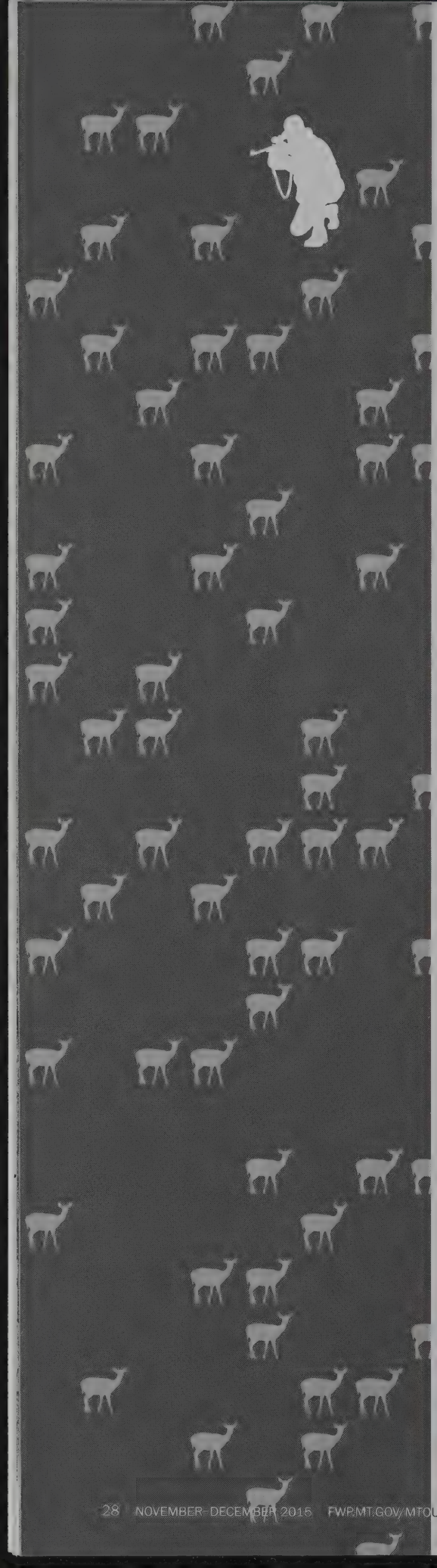
For years Montana has struggled to lower elk numbers in many areas to reach population "objectives," levels determined through a public process and based on the biological carrying capacity of the land, landowner tolerance, and hunter interests. During the 1990s and 2000s, Montana held a five-week regular firearms elk season plus, in areas where that wasn't sufficient to reduce elk numbers, "late-season" cow elk hunts in December or January. FWP also offered special "game damage" hunts to disperse herds on individual properties that allowed general season public hunting but were still having severe depredation problems.

Unfortunately, those management tools didn't always control populations, and elk numbers kept climbing. What's more, some public hunters complained that landowners who leased their property for paid bull elk hunts were profiting from the public's trophy elk during the regular season, then using nonpaying hunters for population "clean-up" during the late-season cow, or antlerless, hunts. (Harvesting female elk is a more effective way to lower populations because they produce new calves each year.)

In 2006, hoping to encourage more landowners to allow public hunting, FWP went to a five-week-only season statewide and ended late-season hunts (while maintaining game damage hunts and "manage-

STEVEN AXFORD

FROM ONE RANCH TO ANOTHER Elk are smart. During the regular five-week firearms season they often congregate on land with no public hunting access. Once the season ends, they head next door to feed on haystacks and pasture. FWP's new shoulder seasons proposal aims to move elk around more during the regular season and increase hunting pressure before and afterward.



ment seasons"—similar to game damage hunts but larger in scale). If the late-season option no longer existed, went the reasoning, landowners would be more likely to let public hunters on their land during the regular five-week season to reduce herd size.

That didn't work either. Landowners bristled at what they considered an attempt to strong-arm them into offering more hunting access. Some who had allowed public hunting during late seasons closed their gates in protest. And elk populations in many hunting districts continued to increase as hunters who had been happy to shoot a cow elk lost additional late-season hunting opportunities.

With landowner dissatisfaction and legislative pressure growing, FWP wildlife managers needed to find a better way to connect elk hunters with the state's growing number of elk.

A NEW PROPOSAL

One way to boost elk harvest would be for more landowners to open their property to public hunting. That continues to be a major challenge. "We respect the absolute rights of landowners to say who does or doesn't hunt on their land," says Kujala. "At the same time, Montana has consistently resisted giving landowners elk permits they can then give or sell to others, as some other Western states have done."

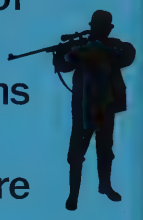
Another way to harvest more elk is to increase hunter success. That's what FWP believes could happen with its new proposed shoulder seasons. In certain hunting districts, the additional seasons of a few days to a few months would take place before or after the existing five-week firearms elk season. "By using more of the calendar, shoulder seasons would create more time for harvest to happen, basically giving hunters more times at bat," Kujala says.

McDonald says that this past summer FWP biologists studied a range of options to reduce elk numbers and make harvest as fair and equitable as possible. The shoulder seasons proposal came out on top. The seasons would also help the agency comply with state statutes requiring it to manage elk populations to objective, as well as meet a mandate by Governor Steve Bullock for FWP to improve relationships among the department, landowners, and hunters.

Even with shoulder seasons, hunting districts would also need to increase elk harvest during the regular firearms seasons. "We can't rely solely on the shoulder seasons to reduce elk populations to objective," says McDonald. "We have to see more harvest during the five-week season, too."

To nudge that outcome, FWP has made the shoulder seasons "performance based."

> **"By using more of the calendar, shoulder seasons would basically give hunters more times at bat."**

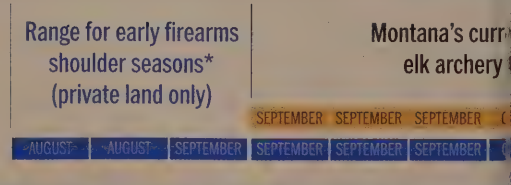


The department will require that a certain number of cow and bull elk are harvested during the regular archery and firearms seasons over a period of three years before agreeing to continue shoulder seasons. "Landowners who restrict access during the general season and want to use the shoulder seasons to reduce elk numbers may need to allow more public access during the general season," says McDonald.

Unlike game damage hunts and management seasons, for which hunters on rosters are notified when they can hunt, shoulder

More elk opportunities

Under FWP's new proposal, firearms elk hunting in some hunting districts could begin as early as mid-August and run as late as mid-February.


Range for early firearms shoulder seasons* (private land only)
Montana's curr elk archery
SEPTEMBER SEPTEMBER SEPTEMBER
AUGUST AUGUST SEPTEMBER SEPTEMBER SEPTEMBER SEPTEMBER

seasons would be listed in the printed hunting regulations, allowing hunters to plan their outings far in advance. The seasons could be offered from mid-August to mid-February.

FWP would still have the option of continuing game damage and management seasons to alleviate severe elk problems on individual properties, McDonald says. "But in theory we wouldn't need those as often because the shoulder seasons and increased general season harvest would bring elk numbers down to objective." Shoulder seasons would not affect early backcountry hunts or primitive weapon hunts.

NOT EVERYWHERE

Shoulder seasons would not be applied in all or even most hunting districts, says Kujala, but only those 15 to 20 areas with significantly overabundant elk numbers. "As the most liberal tool we'd have for population management, they would be used only when other tools—like allowing more B licenses or cow elk harvest during the regular five-week season—haven't worked to lower overabundant populations," he says.

In addition to giving hunters more days to find and harvest elk, the shoulder seasons could move elk herds around the landscape, making them more vulnerable to hunters. "For various reasons, some ranches that allow public hunting don't see many elk during November, but then in December and January the elk move in," says Kujala. "Or elk are there in September but not during the regular season. Now those elk would be more available to firearms hunters."

That's what Hibbard is counting on. "We're already at capacity with public hunters during the five-week season, and we also allow archery hunting and hold a late-season game damage hunt," says the rancher, a member with other local landowners of the long-standing Devil's Kitchen elk management work group. "We're using all the tools available to us but still can't get a handle on elk numbers. If we could have more firearms hunters on our land before and after the general season, like in September, when cow elk are bunched up on our irrigated meadows, that would do a lot."

The shoulder seasons might even result in more public hunters getting a shot at bull elk on currently closed properties. A landowner currently unwilling to allow public hunting for bulls during the regular season might feel added pressure from neighbors concerned about brucellosis and game damage. "It's no guarantee, but we hope the structure of the shoulder seasons results in more cooperation among landowners," says McDonald. "The landowner community has told us they want elk objectives to be met, so this is also an experiment to see how committed they are to helping make that happen."

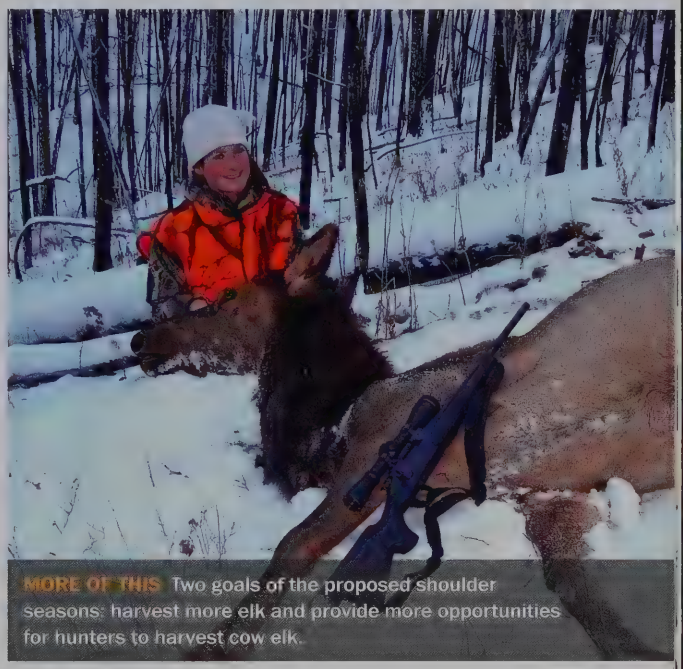
PUBLIC WEIGHS IN

As this issue of *Montana Outdoors* went to press, public opinion was split on the shoulder seasons proposal. "I think the shoulder seasons are a positive step in helping manage elk herds," wrote one Montanan to FWP's public comment website page. Commented another: "More needs to be done for those [of us] who rely solely on big game meat for our family."

But many hunters are still unsure FWP's proposal would work. In a letter published in the *Billings Gazette*, Joe Perry of the Montana Sportsmen's Alliance and J.W. Westman of the Laurel Rod and Gun Club argued that elk overabundance is caused by landowners who harbor elk. The shoulder seasons won't change that, they wrote, and thus will "further erode the public ownership of public wildlife and significantly increase commercialization and privatization of public trust resources." Their solution? Impose cow-only elk seasons on hunting districts where populations greatly exceed objectives.

McDonald says that because FWP manages wildlife in entire hunting districts and not on individual properties, imposing cow-only seasons "would, by not allowing bull elk hunting, end up punishing landowners in those districts who are providing access—not to mention the hunters who hunt on their property and on public land." McDonald won't rule out future antlerless-only seasons in some areas. "But right now," he says, "we believe that the shoulder seasons option we're proposing is the best effort to get those elk numbers down, which is our main objective, while also giving more hunters a chance to shoot a cow elk."

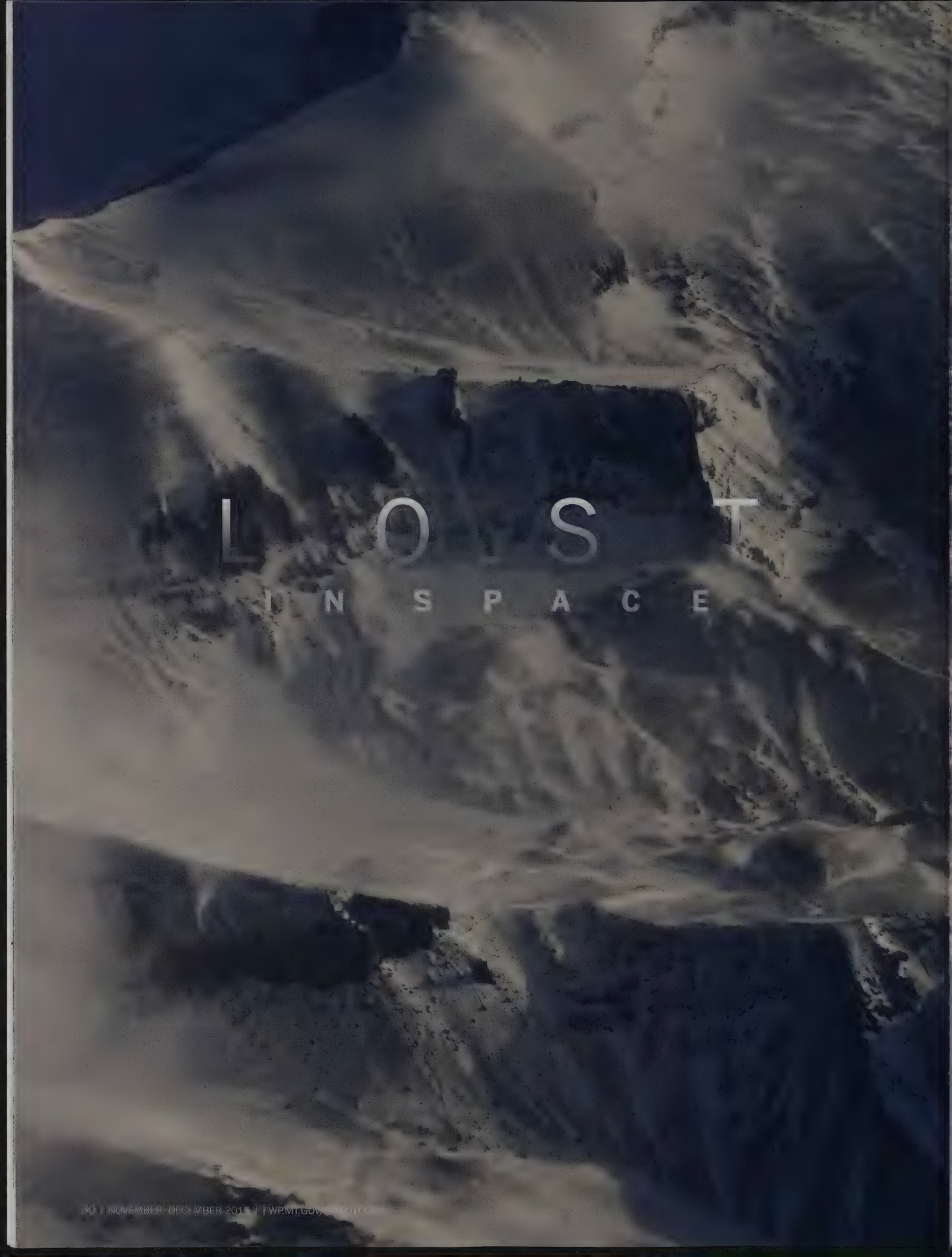
On November 12, the Fish and Wildlife Commission will decide whether to test shoulder seasons in a few hunting districts this winter. Details would be announced in the news media and on the FWP website.



MORE OF THIS Two goals of the proposed shoulder seasons: harvest more elk and provide more opportunities for hunters to harvest cow elk.

RICK CLARK

* Both early and late shoulder seasons could be anywhere from a few days to a few months added before or after the regular firearms season. In no cases would the combined shoulder and regular seasons in a hunting district last an entire six months.


LOST
IN SPACE

Return from the backcountry in one piece by avoiding these mental mistakes.

By Barbara Lee

THE TRAIL WAS KNEE-DEEP in snow and frighteningly narrow. The two backpackers moved cautiously, braced against a ferocious wind that threatened to blow them off the ledge a thousand feet or more. It was mid-October 2012, late in the season for backpacking in Glacier National Park. Conditions can be nasty that time of year along Pitamakan Pass Trail, especially on the high, exposed section near the Continental Divide. As the pair worked their way up the trail, the footing became even more treacherous. One man fell and slid 100 feet down a steep slope, barely avoiding serious injury or worse. The two backpackers walked a parallel course for a short time, separated by the length of the fall, but concluded it was too dangerous to be apart. As conditions continued to deteriorate, and with the realization that they'd lost the trail altogether, both felt a rush of anxiety that intensified by the minute. They decided to descend the mountain until they could find an easier route to the other side of the peak in front of them.

Not a soul knew they were in trouble. Two days passed, and when the men failed to catch their flights back home, one to Maryland, one to Virginia, relatives reported them missing. Dozens of rangers and volunteers joined the search but were hampered by driving snow and rain. One searcher later told a reporter that the wind blew so hard he thought it would knock him off the mountain. ▸▸

PAUL N. QUENEAU

"WHERE AM I?" Even when hiking in familiar terrain, hunters and others can become disoriented or even lost when fog, mist, or snow obscures the sun and visible landmarks. That's why carrying an old-fashioned compass and checking it often is always a good idea when afield.

Each year dozens of hikers and backpackers are reported missing in Montana's backcountry. Search-and-rescue teams recover almost all of them—grateful hunters or hikers who are cold and hungry but still alive. But some aren't so lucky. This past May, the Carbon County sheriff's office recovered the body of a 46-year-old man who apparently got lost in the Absaroka-Beartooth Wilderness. Experts say such tragedies can be avoided if people heading into the backcountry take a few precautions beforehand and, if they do become lost, follow simple—though challenging under stressful conditions—steps.

Compounded problems

Studies of human behavior show that people have a hard time responding to threats that develop slowly. That's often the case for those who become lost in the backcountry. They get in trouble not because of one big problem but several smaller ones—forgetting to bring a raincoat or enough water, developing a blister or twisting an ankle that makes walking difficult, changing destination without alerting anyone, failing to check the weather forecast beforehand. As the day goes on, the problems compound.

That's what happened to a family reported missing in southwestern Montana in June 2015. It was a warm, early summer day, and the group anticipated a hike with signs, rangers, and facilities. They weren't equipped for Beaverhead County's rugged Pioneer Mountains, but continued walking deeper into remote terrain even as they sensed they might not be on the right route. Any hiker who has missed a trail turnoff knows how hard it can be to turn back when you've worked hard to get where you are—even when it's starting to become clear that you're likely going the wrong way.

Studies of human behavior show that people have a hard time responding to threats that develop slowly.

Family members soon discovered that cell phone coverage in the remote mountains was spotty. That prevented them from accessing online maps or calling for help. Unable to find their way back to the trailhead, they ended up spending two long days and nights in the woods before rescuers finally found them.

Rescue experts say that one error many people make is to rely on cell phones for navigation. Batteries can run out and cell coverage in much of Montana's backcountry is dodgy or nonexistent. Yet an old-fashioned map and compass always work. Large-format maps also make it easier to view the overall lay of the land, see how geographic features relate to each other, and find a route

Writer Barbara Lee lives in Eugene, Oregon, and spends each fall caretaking cabins near Gardiner, Montana.

FOUND AND RESCUED County search-and-rescue crews are trained to locate people lost and injured in the outdoors. You can make their job easier by carrying a cell phone—not to use for navigation, but so that rescuers can pinpoint your location via the device's GPS.

back to safety. Learning these navigational skills takes practice, but it's worth it.

That's not to say a cell phone can't have value in the backcountry. "Always bring it anyway and make sure it's charged," says Gallatin County sheriff's office Lieutenant Jason Jarrett, the county's search-and-rescue supervisor. "Even with no coverage, if you're lost and turn it on or try to call 911, rescuers may be able to pinpoint your location. We're seeing an explosion in the use of this kind of technology for search-and-rescue."

Stay put

Probably the biggest mistake people who become completely disoriented make is to continue walking. According to the federal government's "National Search and Rescue Manual," it's not uncommon for people who are lost to leave a spot, illogically head into even more rugged terrain, and make themselves much harder to find. "If you recognize you're lost, particularly when night is approaching, stay put, stay safe, and build a fire for warmth and to signal rescuers," says Sheriff Scott Hamilton, supervisor of Park County's search-and-rescue program. "If you keep moving, rescuers will have to continually reassess the perimeter of the search area, making them less effective at finding you."

Unfortunately, the psychological stress of being lost, as well as a lack of gear to enable staying put, make it difficult for people to follow Hamilton's guidelines and remain in one place. Consider the two hunters who lost their way during an October 2012 snowstorm in the Bridger Mountains. When the men were ten hours late returning to their homes, Gallatin County search-and-rescue workers began looking for them and wound up spending most of the night searching. Because the missing men weren't equipped to make a fire or stay out overnight, they kept walking to keep warm. Rescuers, who early the next morning located the pair, cold and wet but uninjured, later said they would have found the hunters more quickly if the two had stayed in one place.

So they can remain stationary until rescuers arrive, Jarrett advises hunters, hikers, and backcountry skiers to always carry a basic survival kit. It should contain a cell phone, flashlight, whistle, first-aid supplies, extra clothes to keep warm and dry, waterproof matches and tinder, knife, extra food and water, tarp or space blanket, map, and compass.

Just as important, Jarrett says, is for people venturing outdoors to employ common sense. "Use it to avoid getting lost or into other potentially dangerous situations," he says. "And always follow these three guidelines: Know your limits, know the terrain,

How not to get lost

- Don't rely on cell phones for navigation.
- Bring a map and compass and know how to use them.
- Know your limits.
- Know the terrain.
- Always go with a partner.
- Make sure you've told someone where you are going and when they should expect you to return.
- Don't take risks that can put you into dangerous situations.

CLOCKWISE FROM TOP LEFT: DENVER BRYAN; RUSS RILEY; SHUTTERSTOCK; SHUTTERSTOCK

and take a partner with you."

Another tip, this one from Park County's Hamilton: Make sure you tell a neighbor, friend, or family member beforehand where you're going and when they should expect you to return. "I can't emphasize enough how important it is for searchers to receive early notification of a missing person," he says.

Calm yourself

Rescue experts recommend staying attuned to your own and your companion's state of mind. Perception of distance, time, direction, and difficulty can vary according to your mental state. Many factors affect the way we see things: wishful thinking, exhaustion, fear, lack of trust, the desire to appear confident and skilled. For many people who become lost, the primal fight-or-flight response to danger works against calm, logical thinking. Behavioral studies show that most people become agitated when they lose their way. Inability to handle that stress can turn a temporary inconvenience into a dangerous and even deadly episode. The backpackers who went missing off Glacier's Pitamakan Pass Trail were able to contain their panic and stay put. That self-control likely saved their lives.

According to later accounts, the pair never found a route to the other side of the mountain. Instead, they remained in one place for four days, working to remain calm, organized, and positive. The men twice caught sight of a spotter plane, but, to their dismay, it appeared not to see them or their distress signals. They decided that if searchers didn't locate them by the following day, they would try to find their way out. It was an all-or-nothing, high-stakes gamble, with elevated risk and low probability of success.

Researchers note that our perception of our own abilities and state of mind is much more subjective than we think. The lost backpackers had eaten almost nothing for days, had only a general idea of where to go, and their one topographical map was gone—blown out of their hands earlier by an extreme wind.

Fifteen minutes after the lost men agreed on their new, risky plan, they heard a voice in the distance. A rescuer arrived on foot, one of about 50 people who carried out the search in miserable weather and rough topography. A helicopter soon followed, and the backpackers were flown to safety. It was the outcome everyone hoped for, and that many feared wouldn't occur.

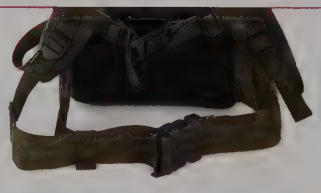
After the rescue, Glacier National Park's chief ranger, Mark Foust, commended the two backpackers. "A standard recommendation for anyone who may be lost is to STOP—Stop, Think, Observe, and Plan—and that is exactly what they did," he said.

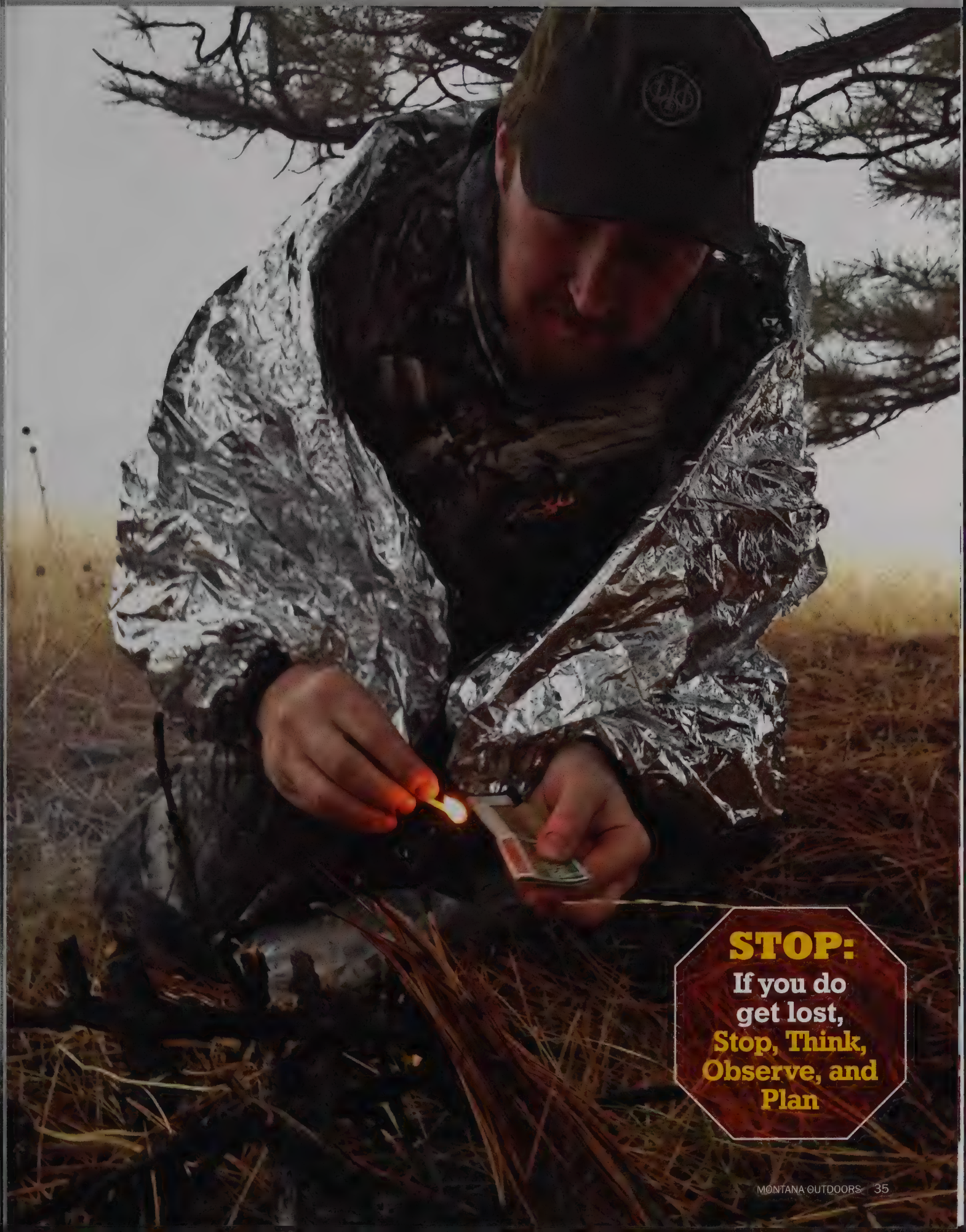
At moderate levels, stress hormones and anxiety help us by heightening focus and quickening response. But when stress turns to panic, those hormones become the enemy. Staying calm, clear, and positive—minimizing panic and maximizing your ability to make commonsense decisions—will keep you from getting lost and, if you do lose your way, allow you to survive. A clear head, a cool demeanor, and common sense can turn what could have been a tragedy into an entertaining story to tell your friends.

SURVIVAL TOOLS Above: A topo map can keep you on the right track. Right: If you do get lost, a space blanket and matches to make a fire will help keep you warm until rescuers arrive.

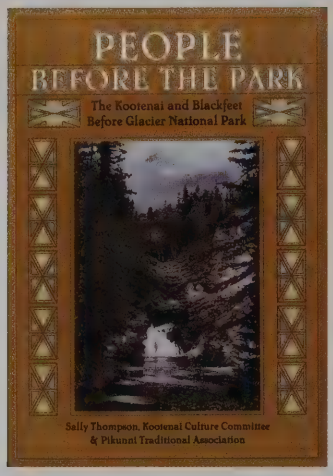
Be prepared just in case

Bring a cell phone so search-and-rescue crews can pinpoint your location via GPS. Carry a survival kit that includes a flashlight, whistle, first-aid supplies, extra clothes to keep warm and dry, waterproof matches and tinder, knife, extra food and water, tarp or space blanket, map, and compass.




STOP:
If you do get lost, Stop, Think, Observe, and Plan

By Tom Dickson



People Before the Park: The Kootenai and Blackfeet Before Glacier National Park

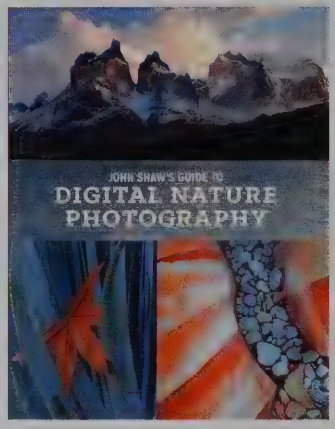
Sally Thompson. Montana Historical Society Press, 220 pp. $19.95

Much has been written about Glacier National Park's scenic wonders. But until now there has been little information on the rich Kootenai and Blackfeet culture in the area before European settlement. Missoula-based anthropologist Sally Thompson, tribal elders, and ceremonial leaders collaborated to produce an accurate and detailed account of the Indians who lived within and traveled among the region for thousands of years. "Our intention here is to draw attention to the rich relationships these two tribes had, and continue to have, with the mountains, glaciers, rivers, lakes, and all the life supported by them in what is now Glacier National Park," Thompson writes. ■

John Shaw's Guide to Digital Nature Photography

John Shaw. Amphoto Books, 240 pp. $24.95

In his new book, *National Geographic* photographer John Shaw provides in-depth advice on everything for the digital camera photographer, from equipment to subjects to software. Though written primarily for those who shoot with digital single lens reflex cameras (DSLRs), Shaw's guide can also benefit those of us who take pictures with point-

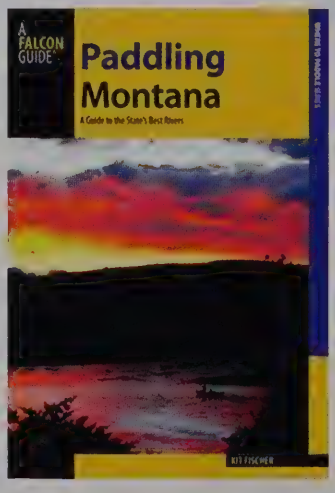


and-shoot cameras and smartphones. Writes Shaw: "To make successful photographs, you must make conscious, deliberate compositional decisions." Then he shows you how. ■

Paddling Montana: A Guide to the State's Best Rivers

Kit Fischer. Falcon Guides, 240 pp. $22.95

Falcon Guides, long the leader in outdoors guidebooks, has upped its game recently with even better color maps and photography. Their new guide to Montana

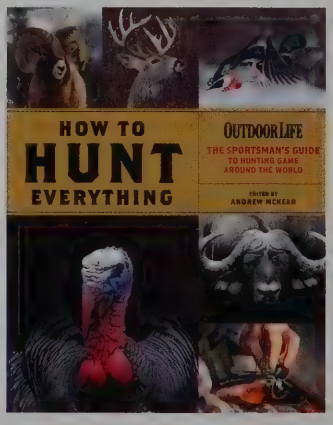


rivers is a prime example. Written by Missoula-based river floating expert Kit Fischer, *Paddling Montana* is the definitive guide to floating 37 of Montana's most scenic waters. The chapter on each river includes a detailed map, access points, level of difficulty, shuttle information, a list of likely hazards, and advice on the best stretch for avoiding crowds. Fischer has river enthusiasm in his blood. His parents, Hank and Carol Fischer, wrote the original edition of the guidebook in the 1970s. ■

How to Hunt Everything: The Sportsman's Guide to Hunting Around the World

Andrew McKean. Weldon Owen, 320 pp. $40.

Okay, not literally "everything." But *Outdoor Life* editor-in-chief Andrew McKean covers about every game animal on the planet in his remarkable new hunting book—from traditional North American species like elk and sharp-tailed grouse, to Africa's "Big 5," to such game species oddballs as blesboks and nilgni. McKean, a longtime freelance



outdoors writer and for seven years an FWP regional information officer in Glasgow, has been at the helm of *Outdoor Life* since 2009. If anyone can edit and write (with four other equally experienced authors) such a book, he can. He grew up in Missouri hunting rabbits and squirrels, moved west and tackled everything from bighorn sheep to Hungarian partridge, and has since traveled the globe hunting in Asia, South America, Africa, and Europe. Despite all he's seen and accomplished as a hunting expert, McKean retains a wide-eyed appreciation for new sights and game species. "This book," he writes, "is a reminder that the wild world is robust, diverse, and full of wonder. And meat." ■

Yellowstone, Land of Wonders Promenade in North America's National Park.

Jules Leclercq. Bison Books, 288 pp. $29.95

You can't swing a mop in the *Montana Outdoors* office without hitting a book on some aspect of Yellowstone National Park. Here's yet another one, and, like so many on our shelves, it's fascinating. In the summer of 1883, Belgian travel writer Jules Leclercq spent ten days on horseback touring the world's first national park, which had been designated 11 years earlier. Leclercq explored Yellowstone's wondrous geyser basins, majestic waterfalls, and breathtaking Yellowstone Canyon, recording his observations of nature as well

Tom Dickson is editor of Montana Outdoors.

DENVER BRYAN

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as human activity—such as the rampant vandalism in the park at the time. His travelogue became a sensation in Europe but was never published in English until now. This new translation makes available to English speakers a masterpiece of late 19th-century travel writing as well as a fascinating historical document of one of the most important places in the United States. ■

Ponderosa: People, Fire, and the West's Most Iconic Tree

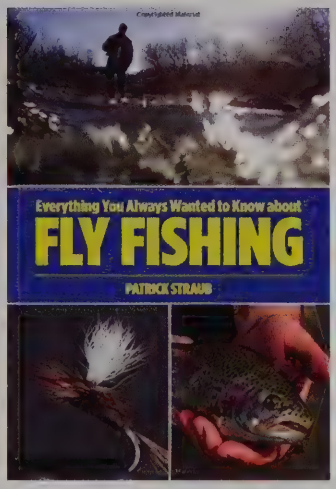
Carl E. Fiedler and Stephen F. Arno. Mountain Press, 248 pp. $20

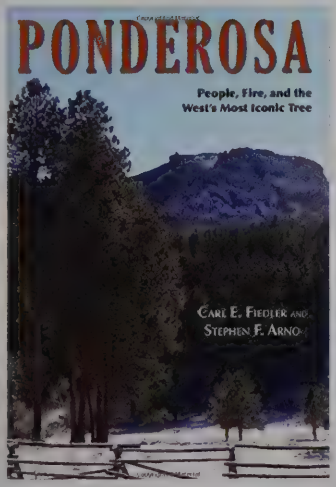
"Ponderosa forests are places of moderation—neither too hot nor too cold—and are some of the most desirable places to live in the West. Native Americans lived among the pines for untold centuries, and now modern Americans do, too." So begins the authors' tribute to this stately tree, documenting how decades of heavy logging and fire suppression degraded ponderosa forests and suggesting what can be done to restore them to their former glory. Written by Montana research foresters Carl Fiedler and Stephen Arno, the book includes chapters on Native Americans and ponderosa pines, the tree's importance to pioneers, and the species' remarkable characteristics, as well as a guide showing 64 sites across the West with especially significant or scenic ponderosa forests. ■

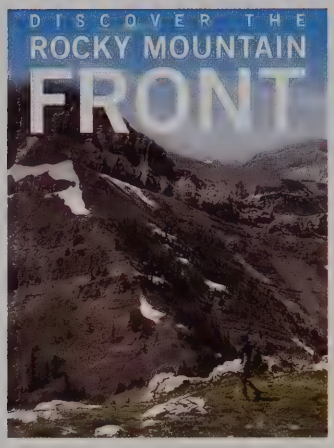
Everything You Always Wanted to Know about Fly Fishing

Patrick Straub. Lyons Press, 192 pp. $16.95

You'd think Patrick Straub would be expert enough. He's been a guide and outfitter based in Bozeman for 20 years and has written widely on fly fishing, including *The Orvis Pocket Guide to Streamer Fishing*. But for his new book, Straub interviewed fellow Montana guides and fly shop owners and compiled their fly-fishing insights into this compact volume. Among the many tips I picked up from the book's lively question-and-answer format: Swing an epoxy minnow fly through picky Trico-sipping trout on spring creeks (Matt Potter, co-owner of the Kingfisher fly shop in Missoula); on fast water, make shorter drifts and keep moving along the river until you find a "dumb fish" (John Bailey, owner of Dan Bailey Fly Shop in Livingston); and even though there are a zillion nymph patterns out there, the traditional Hare's Ear, Prince, and Pheasant Tail remain the top patterns for catching Montana trout below the surface (Steve Summerhill, owner of The River's Edge Fly Shop in Bozeman). ■ ▸▸







Discover the Rocky Mountain Front

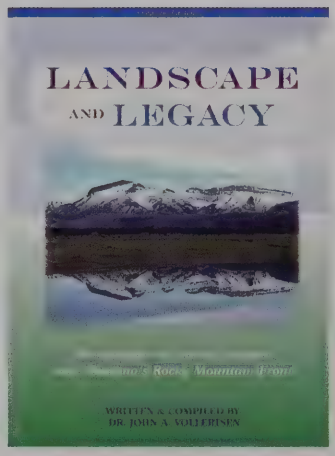
Tom Kotynski. Riverbend Publishing, 200 pp. $16.95

To fully understand and appreciate the Rocky Mountain Front, you have to get back in there and see it up close. Tom Kotynski can help. A former *Great Falls Tribune* editor, Kotynski has hiked and written about this wild part of Montana for 40 years. He recently reissued his definitive guide to hiking the band of mountains that forms the Front. The newly revised book—the original was published ten years ago—describes 32 hikes and includes information on wildlife watching, access roads, camping, and services in nearby towns. It also recommends places to hike with kids, mountains for "peak baggers," and even where to find the Front's few waterfalls. ■

Landscape and Legacy: The Splendor of Nature, History, and Montana's Rocky Mountain Front

Dr. John Vollertsen. Sweetgrass Books, 352 pp. $19.95

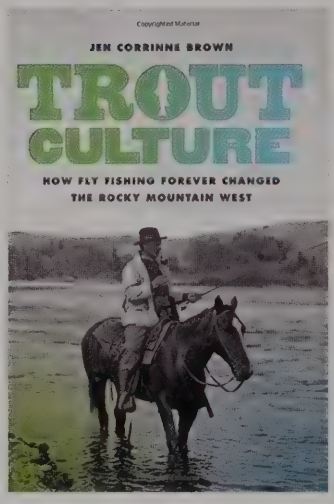
Likely due to all the attention given the Rocky Mountain Front in recent years, culminating in Congress designating, in 2014, nearly 70,000 acres of new wilderness there, several books on the scenic, wildlife-rich region were published in 2015. Among our favorites is this barebones compilation of chapters by local experts on the Front's geology, wildlife, conservation, and wilderness protection. You can find plenty of coffee-table books filled with photographs of the Front's scenic splendors. This isn't one of them. *Landscape and Legacy* instead focuses on the area's natural history and conservation culture. In one especially lively chapter, FWP wildlife biologist Mike Thompson writes of his two summers as a graduate student studying mountain goats along the Front. In another, FWP wildlife biologist Jim Williams tells of the three years he spent chasing and capturing mountain lions for study in the rugged region. ■



Trout Culture: How Fly Fishing Forever Changed the Rocky Mountain West

Jen Corrinne Brown. University of Washington Press, 248 pp. $35

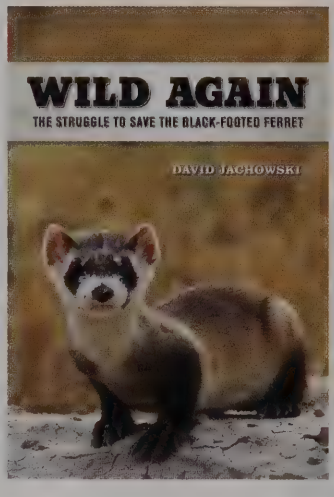
How did fly-fishing so permeate the culture of Montana and other western states? Historian Jen Corrinne Brown traces the sport's history to its roots in England, then to the American East Coast, and finally to the Rocky Mountain West, where it found favor with locals and tourists. You may not agree with Brown's conclusion that state fisheries agencies should do much more to restore not just native trout species but also native nongame coldwater species such as the northern pikeminnow. But her thoroughly researched book is worth reading by anyone who wants to understand why recreational trout fishing became such a big deal in the West. ■



Wild Again: The Struggle to Save the Black-Footed Ferret

David S. Jachowski. University of California Press, 256 pp. $34.95

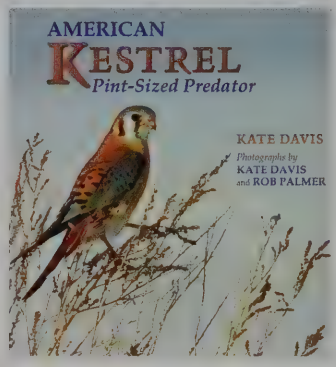
From 2002 to 2012, David Jachowski was a U.S. Fish & Wildlife Service wildlife biologist who coordinated recovery of the black-footed ferret, one of the nation's most endangered wildlife species. In *Wild Again*, he tells the story of how the black-footed ferret nearly became extinct and how conservationists, including ranching families, are working with government agencies to bring the species back. Jachowski's first-person accounts of living and working across the West provide a unique perspective that reveals the scientific and human aspects of endangered species recovery in the northern Great Plains. ■



American Kestrel: Pint-Sized Predator

Kate Davis. Mountain Press, 128 pp. $18

The kestrel is one of Montana's most identifiable and beloved raptors. Its vivid rufous and blue-gray plumage, peppered with dashes of black and white, make these birds of prey easily recognizable—especially when they hover in the air next to roadsides searching for mice, voles, insects, and small snakes. Author Kate Davis, founder of the Raptors of the Rockies conservation center in the Bitterroot Valley, writes about the bird's hunting, breeding, and puzzling population decline. Davis is also an expert wildlife photographer. Her stunning photos, along with those of noted raptor photographer Rob Palmer, illustrate the book.



Losing while gaining

by Bruce Auchly

A couple of weeks ago, I went hunting and found a fancy cow elk call. It's a hand-held device adjustable to imitate a basic mew, a lost cow, or a cow in heat.

Most people who spend enough time outdoors find stuff. We also lose stuff. If personal experience is any indication, we lose many more things than we find.

But often what we gain makes the losses worthwhile.

Let's do a tally. The elk call I found, depending on the store, runs about $25. Over the years, I've also found a pocket knife, probably worth $20, a wedding ring, and a revolver. And a bunch of fishing lures.

The wedding ring still sits in my desk drawer. In 2001, while hiking in the Bob Marshall Wilderness, I looked down at my feet (always a good idea to keep from tripping) and saw something gleam.

An ad in the paper, a phone call to the Forest Service, and an e-mail to the Bob Marshall Wilderness Foundation failed to turn up a claim. The ring's worth? It's probably priceless to the owner. Or maybe worthless, depending on whether it was lost or tossed.

After posting a notice at the FWP game check station in Augusta, I was able to return the revolver to the owner, so no reason to calculate its worth. Still, I probably banked some good karma.

The fishing lures? Maybe less than $10.

People who fish seem to lose and find more stuff than hunters. Maybe it's because when angling we expect to lose things. Like fish, for example. And everyone has lost hooks, flies, or lures to rocks or brush, and left equipment and clothing on some distant shore. I once lost a watch and a pair of eyeglasses on a single short float trip. Whew.

On the debit side of the ledger of things I've lost while hunting: a folding knife, a folding saw, a jacket, and a headlamp.

The folding knife was a good one, worth about $40, but I don't miss it. I've since become a proponent of fixed blade, drop-point knives for field-dressing game. A lesson learned at a reasonable cost.

Losing the folding saw, used for cutting open a rib cage, was fine by me. It's resting on a remote hillside under a spike elk's rib cage. Good trade.

The jacket, apparently snatched by a branch because I didn't have it secured to my pack, was a terrible loss. Made of some space-age material, it held up to the claim of being windproof and waterproof. Replacement value: maybe $100. Ouch.

Still, I spent a wonderful day with a good friend, so not such a huge loss after all.

The headlamp cost about $20. I also shot a cow elk that day. Another trade I'll take any day.

The point is, if you don't go out, you won't lose anything. But you'll also never gain all those experiences and memories, which are priceless.

Bruce Auchly manages the FWP regional Information and Education Program in Great Falls.

ILLUSTRATION BY E.R. JENNE

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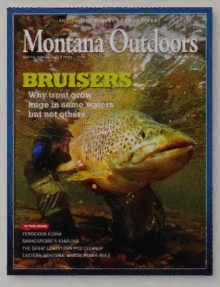

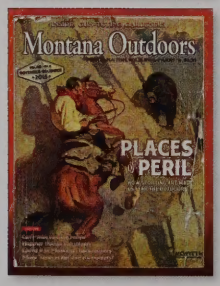

JANUARY–FEBRUARY 2015

34th Annual Photography Issue

MARCH–APRIL 2015

Where Have All the Porcupines Gone? In western Montana's mountains, once-numerous "quill pigs" have disappeared. Biologists have theories but, so far, no answers. By Ellen Horowitz

Secrets of a Morelling Master A day afield with Montana's "Mushroom Whisperer." By Tom Dickson. Photos by Paul Queneau

The People Behind the Place Montana's new Outdoor Hall of Fame celebrates the broad cross-section of individuals who've made—and continue to make—this wild and scenic state what it is today. By Tom Dickson

Back Talk Whether wagging, waving, thrashing, flaring, rattling, slapping, or bobbing, animal tails have a lot to say. By Ben Long

A Great Place To Be a Bluebill Researchers at Red Rock Lakes in southwestern Montana are trying to figure out why lesser scaup are faring so well at the remote national wildlife refuge but so poorly elsewhere in North America. By Tom Dickson

Finding a Way Through Biologists and ranchers are devising innovative ways to help elk, deer, pronghorn, and other wildlife travel over, under, and through livestock fencing without harm. By Jack Ballard

MAY–JUNE 2015

In Love With the Gallatin Easy to access, easy to wade, and often even easy to fish, it's no wonder the spectacularly scenic Gallatin remains one of Montana's most popular trout rivers. By Ben Pierce

Beware the Savage Sundew If you're an insect, that is. Also watch out for bladderworts and Montana's other carnivorous plants. By Ellen Horowitz

Enough For All Cooperation among irrigators, anglers, and state agencies ensures that Painted Rocks Reservoir provides the Bitterroot River with enough water for both trout and crops each summer. By John Grassy

A Recipe for Big Trout Start with a cold, clean river, add organic elements and compounds that increase fertility, warm the water slightly in sunshine, then make sure too many fish aren't competing for food. Mix thoroughly. Serves many happy anglers. By Jeff Erickson

Making Things Right Again After high levels of PCBs in Big Spring Creek were discovered coming from its Lewistown hatchery, FWP was faced with a dilemma: wait for other state and federal agencies to tell it what to do, or start cleaning up the mess and winning back the community's trust. By Todd Wilkinson

Panfish on the Prairie Eastern Montana's fishing ponds may not draw the tourists that mountain trout rivers do. That's fine with local anglers, who are happy to have places to catch abundant, tasty fish all to themselves. By Jack Ballard

JULY–AUGUST 2015

A Unique Solution? The rules governing angler floats on the Beaverhead and Big Hole Rivers seem to be working well. But are they appropriate for the growing number of Montana rivers experiencing similar user conflicts? By Tom Dickson

The Trouble With Tricos They're too small. They're too numerous. And because trout go bonkers for the miniature mayflies, they're too hard for any fly angler to ignore. By Tom Dickson

Where Prairie Meets Mountain The origins, beauty, grandeur, and wonder of Montana's Rocky Mountain Front. By David Cronenwett

Cleaning the Slate Why FWP wants hunters to cull an entire herd of bighorn sheep in the Tendoy Mountains southwest of Dillon. By Tom Dickson

Straddling the Border The ongoing challenge of managing Lake Koocanusa—a scenic, 90-mile-long reservoir that sits in both the United States and Canada. By Ben Romans

All Eyes on the Water Volunteer lake monitors keep close watch on northwestern Montana lakes. What are they finding? By Becky Lomax

SEPTEMBER–OCTOBER 2015

Affable Authority FWP game wardens mean business. But with a nod and a smile. Story and photos by Allen Morris Jones

Just One Bugle We listen to screams all right, but they're not from elk. By Amy Engbretson

Running the Duck Factory How Montana manages its nationally significant (but often unrecognized) waterfowl populations. By Dave Books

We Lucky Few Let's pause the gloom-a-thon for just a moment to remember that we get to hunt in Montana. By Tom Dickson

Mastering Block Management No one ever said having 8 million acres of private land to hunt would be easy. By Dave Carty

The Judith Turns 75 Montana's popular wildlife management area system celebrates its diamond anniversary with the acquisition that started it all. By Bruce Auchly. WMA photos by Chris McGowan.

NOVEMBER–DECEMBER 2015

Gardening with a Gun Locavores—some of them ex-vegetarians—are adding organic, free-range game meat to their fall harvest. By Tom Dickson

A Fine Finish Ending Montana's pheasant season with a rooster volcano. By Rick Bass

Danger Around Every Bend How sporting art's "predicament scenes" have shaped our perceptions of the outdoors. By Todd Wilkinson

Shouldering Its Responsibility FWP proposes additional hunting seasons to reduce the size of burgeoning elk herds in parts of Montana. By Tom Dickson

Lost in Space Return from the backcountry in one piece by avoiding these mental mistakes. By Barbara Lee

BACK ISSUES

ONLINE: All stories from 2002–2015 issues are available online at **fwp.mt.gov/mtoutdoors/**. Most back issues of *Montana Outdoors* previous to 2002, along with most predecessor publications (*Montana Wild Life*, *Sporting Montana*, and *Montana Wildlife*) dating back to 1928, are available online at archive.org.

PAST MAGAZINES are $4.50 each, which includes shipping. Send your request along with payment to: *Montana Outdoors*, P. O. Box 200701, Helena, MT 59620-0701.

Least weasel

Mustela nivalis

By Dennis C. Joyes

According to Blackfoot legend, the weasel is the bravest of animals, a hunter bold out of all proportion to his size. Modern scientists agree, as every feature of these graceful and lightning-fast little animals seems designed to make them the perfect predator. This is especially true of the least weasel, the smallest of three weasels found in Montana and the world's smallest carnivore.

Identification

The German word for the least weasel, *mauswiesel*, refers to its tiny size. Males are no more than 7 inches long, including the tail, and females rarely exceed 5 inches. Both sexes are brown above with white underparts, coloration similar to that of Montana's two other weasels, the short-tailed and long-tailed (the latter with cream underparts). Unlike its cousins, the least lacks a black tail tip.

In winter the coat of the least weasel turns entirely white. Though soft, the fur lacks the silky elegance of the short-tailed weasel, or ermine, whose coat was coveted by Native Americans and European royalty.

All weasels have long, slender bodies, short legs, and a pointed, rather flat head with short ears, catlike whiskers, and large black eyes. Its neck is long, allowing the weasel to snatch prey from tight spaces. The head is its largest part, so a weasel can enter any hole its head fits into. Weasels appear almost boneless and are so flexible that they can reverse directions in impossibly small spaces. The jaws are short, heavily muscled, and armed with 34 razor-sharp teeth.

Writer Dennis C. Joyes lives in Ontario and frequently visits his home state of Montana.

SUMMER WEASEL: DAWN Y. WILSON; WINTER ERMINE: PHIL FARNES

Scientific name

Mustela is Latin for "weasel" and *nivalis* is Latin for "pertaining to snow," referring to its white winter coat.

Range

The least weasel is distributed across the northern part of continents around the world. In North America, the species occurs across Canada and down into Montana, the Dakotas, the Midwest, and even as far south as Kansas. In Montana they are found everywhere except in a few counties bordering Idaho, with most reports coming from northeastern counties.

Habitat

Least weasels live in grasslands and open woodlands and along field edges and fencerows, wherever they can find abundant prey. They coexist with their larger cousins as long as prey is abundant.

Food and Hunting

Dubbed a "hair-trigger mousetrap with teeth" by one biologist, the least weasel is a specialized predator whose diet is mainly mice and small voles. It eats insects and ground-nesting birds, but only if other prey is scarce.

The least weasel is a solitary predator that hunts with fierce concentration, checking every nook and cranny and frequently standing upright to survey its territory. The tiny carnivores search for prey under snow and often follow tunnels made by mice and voles. They instinctively attack moving prey, which they dispatch with a quick bite through the back of the neck. Because of their high energy demands, weasels hunt both day and night, consume about half their body weight daily, and stockpile prey during times of abundance.

Reproduction

"Unlike the short- and long-tailed weasels, the least weasel does not delay implantation [of the embryo]," writes Kerry Foresman in *Mammals of Montana*. "Breeding may occur throughout the year, even during the coldest months of winter." Gestation takes 34 to 37 days. In a nest made in an abandoned chipmunk or vole burrow—the inhabitants of which may have found themselves on the weasel's dinner menu—the female gives birth to four or five young. The male disappears after mating, so the female is left to both care for the pups, born blind and helpless, and hunt for food. Weasel kits eat voraciously, grow rapidly, and are able to kill small mice within seven weeks. They are fully grown in 12 to 15 weeks, after which families break up and the young set up territories of their own.

Conservation status

Least weasels are seldom seen and thus considered relatively rare. Their numbers vary with prey abundance, and they, in turn, are vulnerable to a variety of predators, including domestic cats and dogs. The species is not considered threatened and will likely thrive as long as there is abundant habitat for mice and voles.

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PARTING SHOT

JUST PASSING THROUGH A herd of bull elk crosses a field past horses near Canyon Creek, north of Helena. Keeping the big game animals on the move is one way a new FWP proposal aims to increase elk harvest in areas where numbers have grown too large. See story on page 26. Photo by Jesse Lee Varnado.

Montana Fish, Wildlife & Parks

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